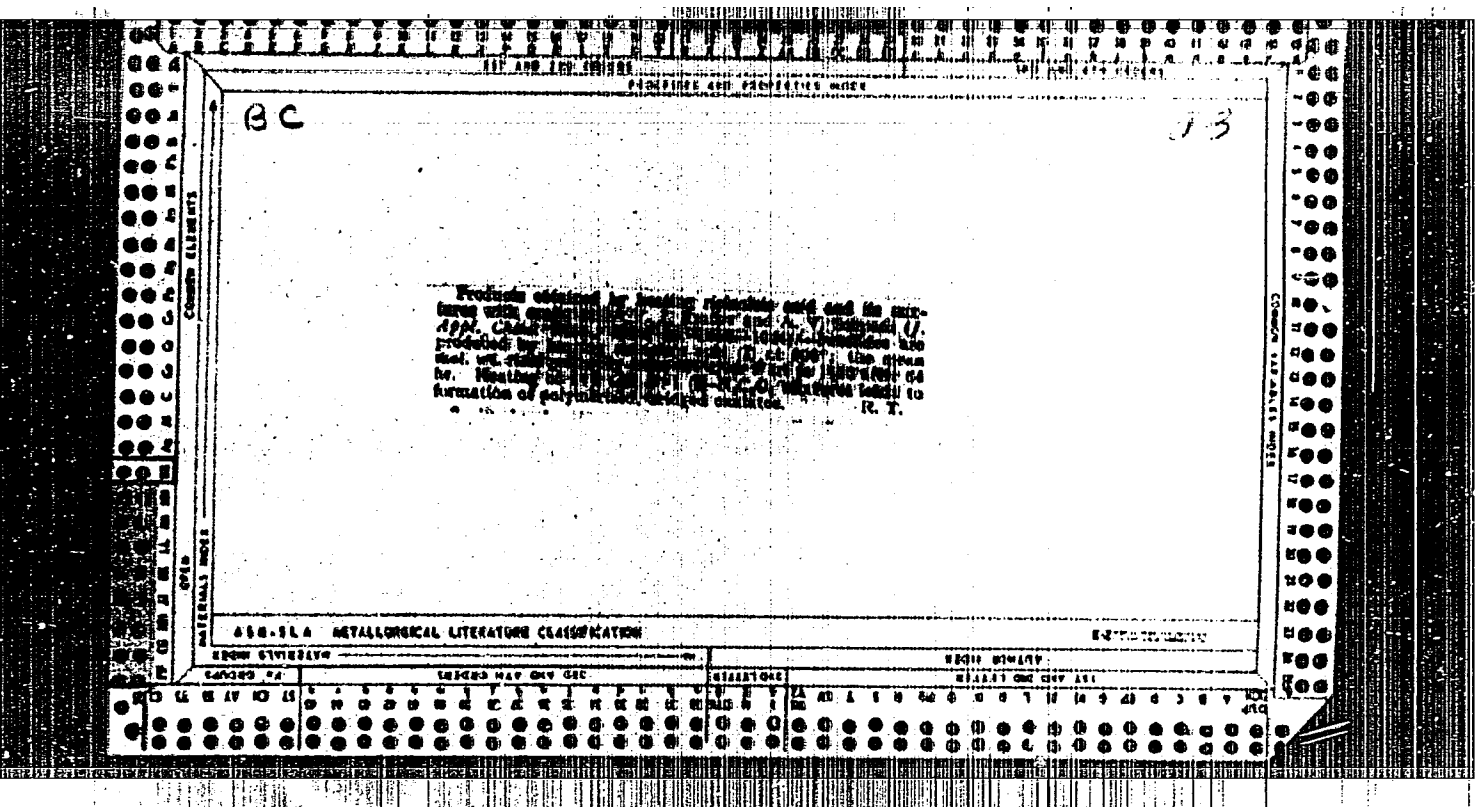
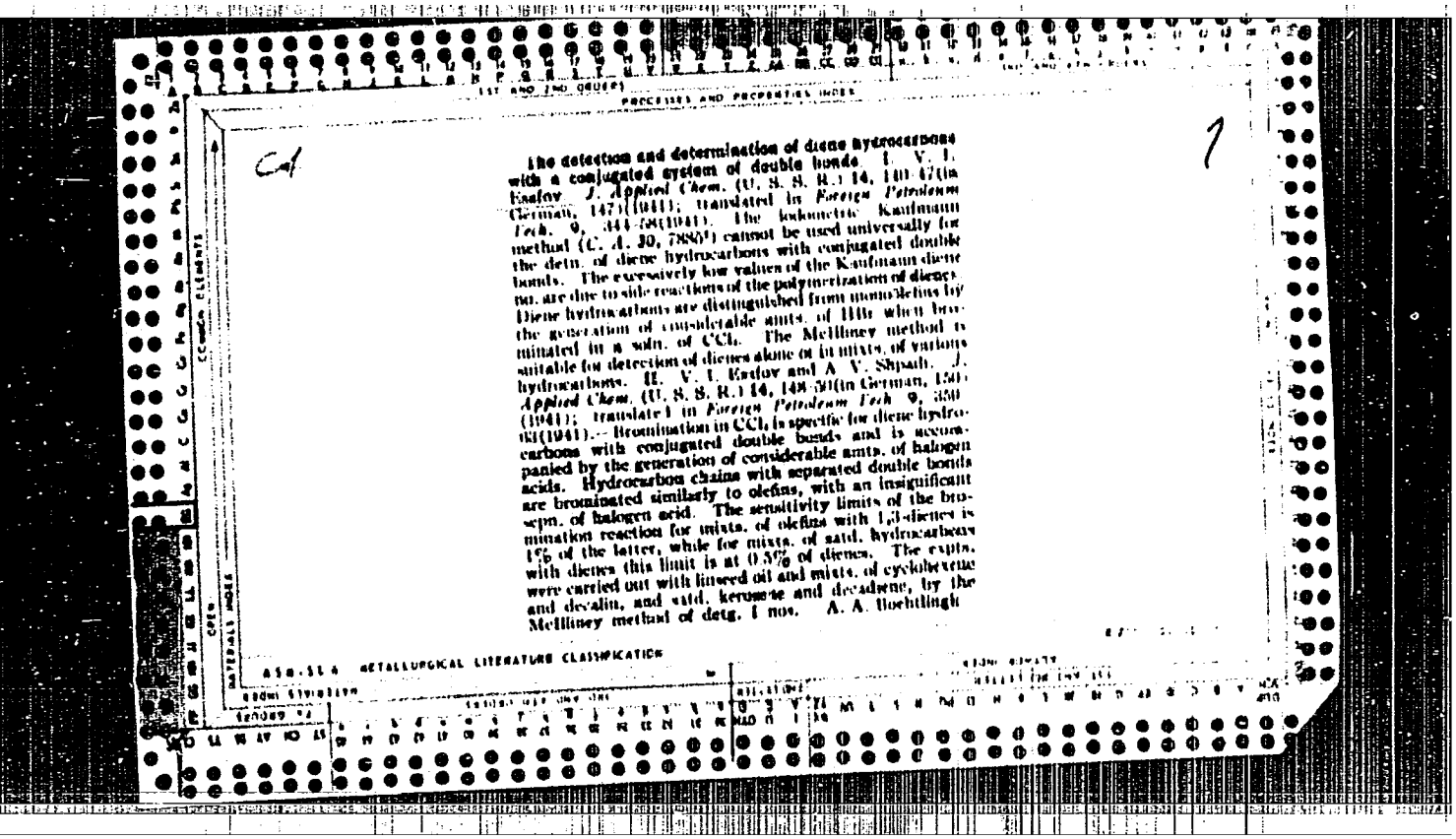
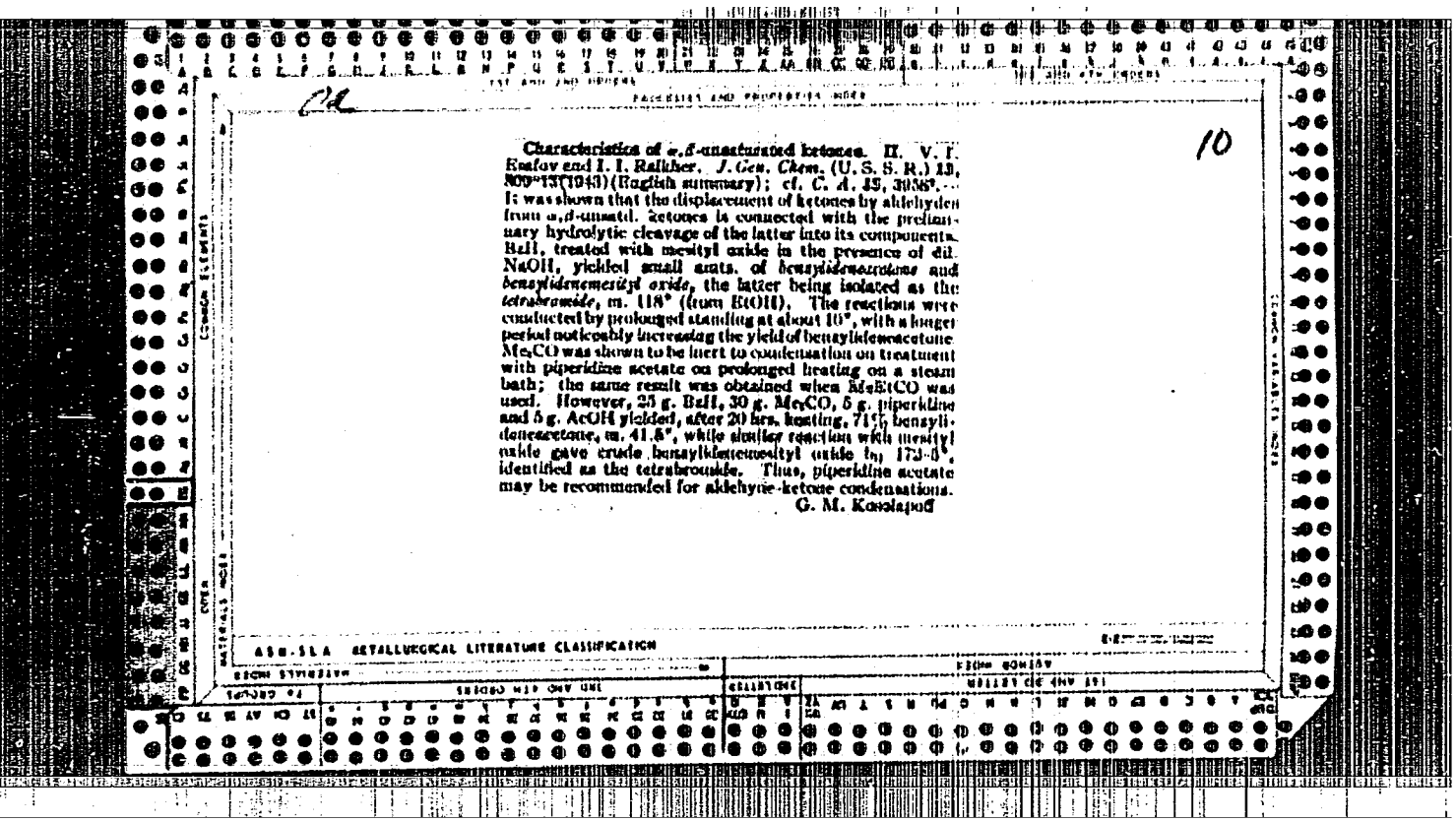




The detection and determination of diene hydrocarbons with a conjugated system of double bonds. I. V. I. Esafov. *J. Applied Chem.* (U. S. S. R.) 14, 140-47(in German, 147)(1941); translated in *Foreign Petroleum Tech.* 9, 344-50(1941). The iodometric Kaufmann method (C. A. 30, 7880[1]) cannot be used universally for the detn. of diene hydrocarbons with conjugated double bonds. The excessively low values of the Kaufmann diene no. are due to side reactions of the polymerization of dienes. Diene hydrocarbons are distinguished from monoolefins by the generation of considerable amts. of HBr when brominated in a soln. of CCl_4. The Mcllhiney method is suitable for detection of dienes alone or in mixts. of various hydrocarbons. II. V. I. Esafov and A. V. Shpath. *J. Applied Chem.* (U. S. S. R.) 14, 148-50(in German, 150-1)(1941); translated in *Foreign Petroleum Tech.* 9, 350-3(1941).—Bromination in CCl_4 is specific for diene hydrocarbons with conjugated double bonds and is accompanied by the generation of considerable amts. of halogen acids. Hydrocarbon chains with separated double bonds are brominated similarly to olefins, with an insignificant sepn. of halogen acid. The sensitivity limits of the bromination reaction for mixts. of olefins with 1,3-dienes is 1% of the latter, while for mixts. of satd. hydrocarbons with dienes this limit is at 0.5% of dienes. The expts. were carried out with linseed oil and mixts. of cyclohexene and decalin, and satd. kerosene and decadiene, by the Mcllhiney method of detg. I nos. A. A. Boehtlingk



Characteristics of α,β-unsaturated ketones. II. V. I. Rudov and I. I. Rakhlin. *J. Gen. Chem.* (U. S. S. R.) 13, 809–13 (1943) (English summary); cf. C. A. 37, 3036⁸. I; was shown that the displacement of ketones by aldehydes from α,β-unsatd. ketones is connected with the preliminary hydrolytic cleavage of the latter into its components. BzH, treated with mesityl oxide in the presence of dil. NaOH, yielded small amts. of *benzylidenacetone* and *benzylidenemesityl oxide*, the latter being isolated as the *tetrabromide*, m. 118° (from EtOH). The reactions were conducted by prolonged standing at about 10°, with a longer period noticeably increasing the yield of benzylidenacetone. Me_2CO was shown to be inert to condensation on treatment with piperidine acetate on prolonged heating on a steam bath; the same result was obtained when Me_2EtCO was used. However, 25 g. BzH, 30 g. Me_2CO, 5 g. piperidine and 5 g. AcOH yielded, after 20 hrs. heating, 71% benzylidenacetone, m. 41.5°, while similar reaction with mesityl oxide gave crude benzylidenemesityl oxide b_{11} 175–8°, identified as the tetrabromide. Thus, piperidine acetate may be recommended for aldehyde-ketone condensations.

G. M. Kosolapoff

PROCESSES AND PROPERTIES INDEX

Ca

10

Preparation of enanthylideneacetone. V. I. Esafov, I. F. Vladimirtsev, M. S. Kasankhina, Z. S. Elilla, Z. I. Pronina and I. I. Raikher. *J. Gen. Chem.* (U.S.S.R.) 13, 814-17(1943)(English summary).—It was shown that the product obtained by Rupe and Hinterlach (*C. A.* 4, 806) from condensation of Me_2CO with enanthole in the presence of 1% NaOH is not enanthylideneacetone but decan-4-ol-2-one. Authentic enanthylideneacetone was prepd. as follows: 5 g. piperidine and 5 g. glacial AcOH, in 58 g. dry Me_2CO, were treated dropwise with 29 g. enanthole while refluxing the mixt. on a steam bath; after the addn., which requires 4 hrs., the mixt. was heated for 8 hrs., cooled, the aq. layer sepd. while the org. layer was freed of Me_2CO, dild. with Et_2O, dried over Na_2SO_4 and distd. to yield enanthylideneacetone, b_{10} 100-110°, n_D^{20} 1.4480, d_4^{20} 0.8473; yield, 15-17 g. The product yields the normal positive iodoform reaction. The product obtained by R. and H. yields enanthylideneacetone after dehydration over $KHSO_4$-Na_2SO_4 by repeated distn. at 22 mm. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Ca

10

Synthesis of new hydrocarbons with a conjugated sys-
tem of double bonds. IV. V. I. Esafov, I. P. Vladimirt-
sev, M. S. Kasatkhina and I. I. Kalkher. J. Gen. Chem.
(U. S. S. R.) 13, 818-23(1943)(English summary); cf.
C. A. 39, 476[a] and following abstr.—MeMgI (from 14.5
g. MeI) was added dropwise over 5 hrs. to 13.4 g. ethan-
thylideneacetone in Et_2O at −15°; after standing overnight
and decompn. by ice and NH_4Cl, there was obtained 16%
2-methyl-1,3-decadiene, b_{18} 88°, n_D^{20} 1.4492, d_4^{20} 0.7718.
The product, heated for 20 hrs. in a steam bath in a sealed
tube with maleic anhydride in toluene, yielded an *adduct*,
apparently of the trimer, which could not be reduced to
the cryst. state. Similar reaction using EtMgBr gave a
mixt. of *3-methyl-3,5-hendecadiene* and *2-ethyl-1,3-deca-
diene*, b_{18} 96-104°, n_D^{20} 1.4510, d_4^{20} 0.7906; heating with
maleic anhydride gives a mixt. of adducts of the monomer
and the dimer of the hydrocarbons, in the form of a heavy
oil. A similar prepn. using iso-AmMgBr gave a mixt. of
2-isoamyl-1,3-decadiene and *2,6-dimethyl-4,6-tridecadiene*,
b_{18} 126-34°, n_D^{20} 1.4484, d_4^{20} 0.7806. G. M. Kosolapoff

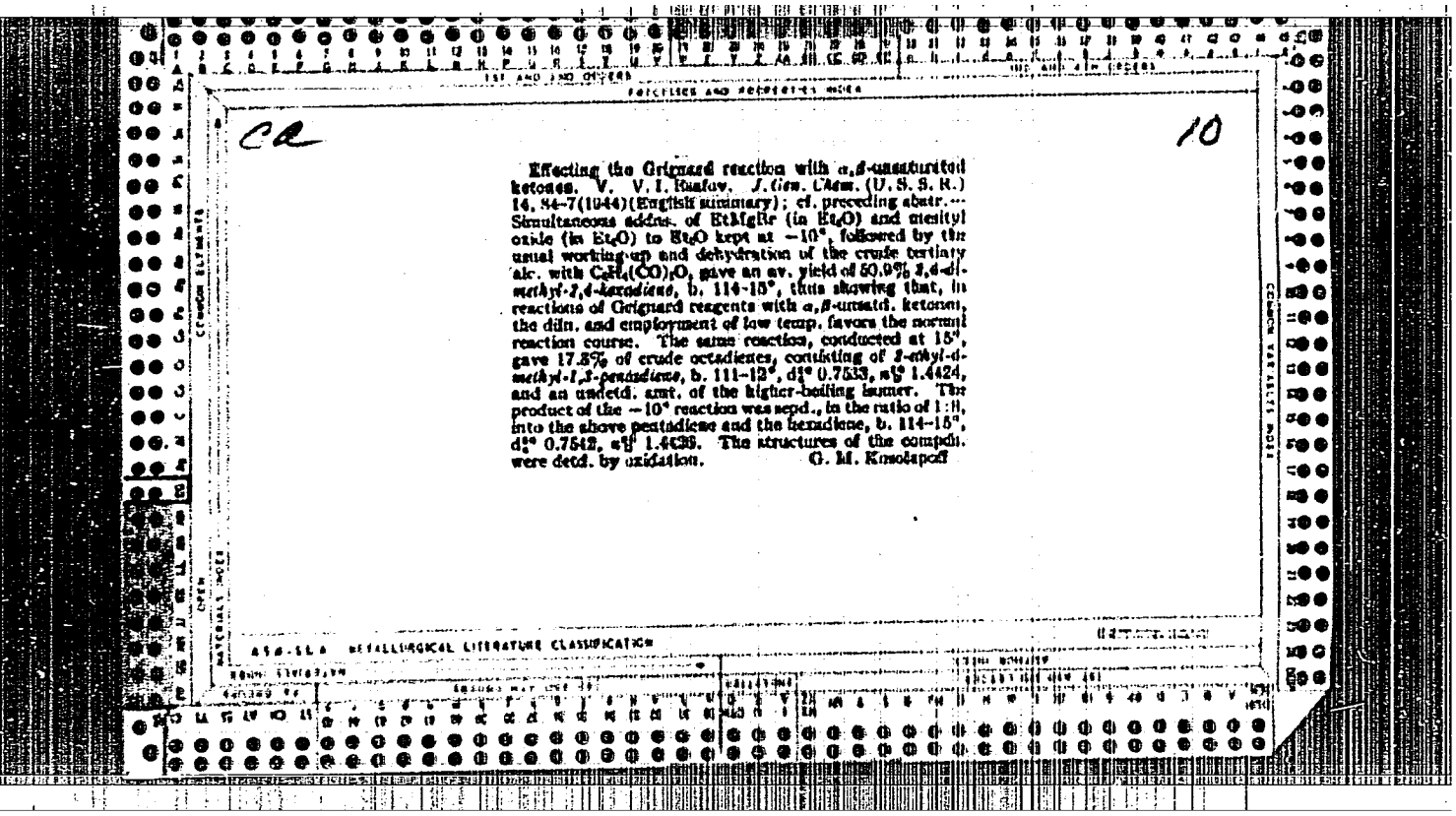
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

7

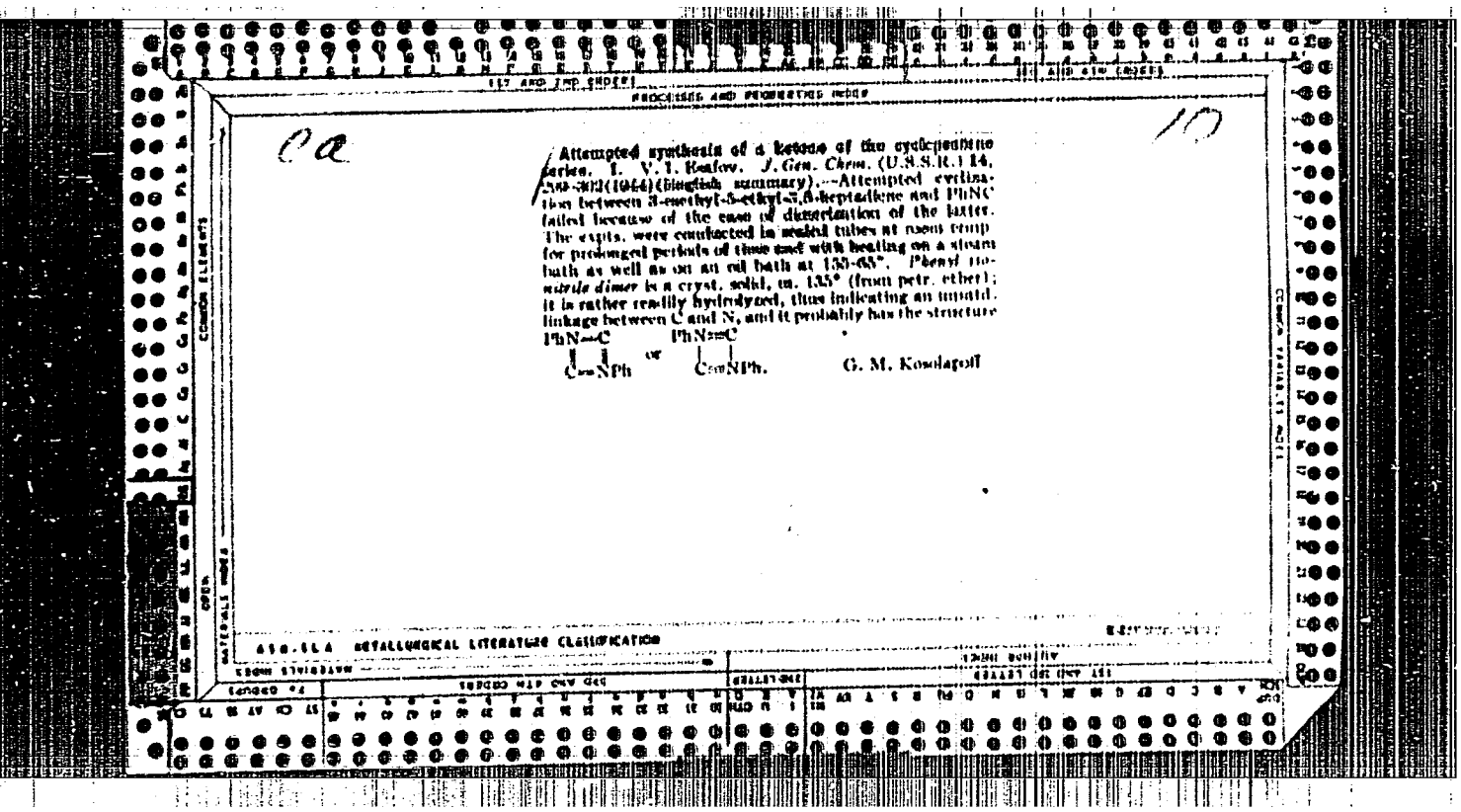
Detection of diene hydrocarbons with a conjugated double-bond system. III. V. I. Rafor. *J. Applied Chem.* (U.S.S.R.) 16, 283-05(1943)(English summary); cf. *C. A.* 36, 2206[4].—On the basis of more accurate work it is shown that the reaction of bromination in CCl_4 is specific only for those dienes which have 1, or better 2, side chains connected to carbons of the conjugated system; in the latter case considerable HBr is evolved and 50-60% of Br is used for these side reactions. Di- and tri-isobutylenes are characterized by this behavior among the olefin hydrocarbons. The iodination reaction is specific for dienes of normal and branched structures and these are characterized by some 88% conversion of I into HI by the side reactions; di- and tri-isobutylenes are characterized likewise. The I no. procedure of Hübl-Waller is most precise for detg. unsatn. O. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA 10

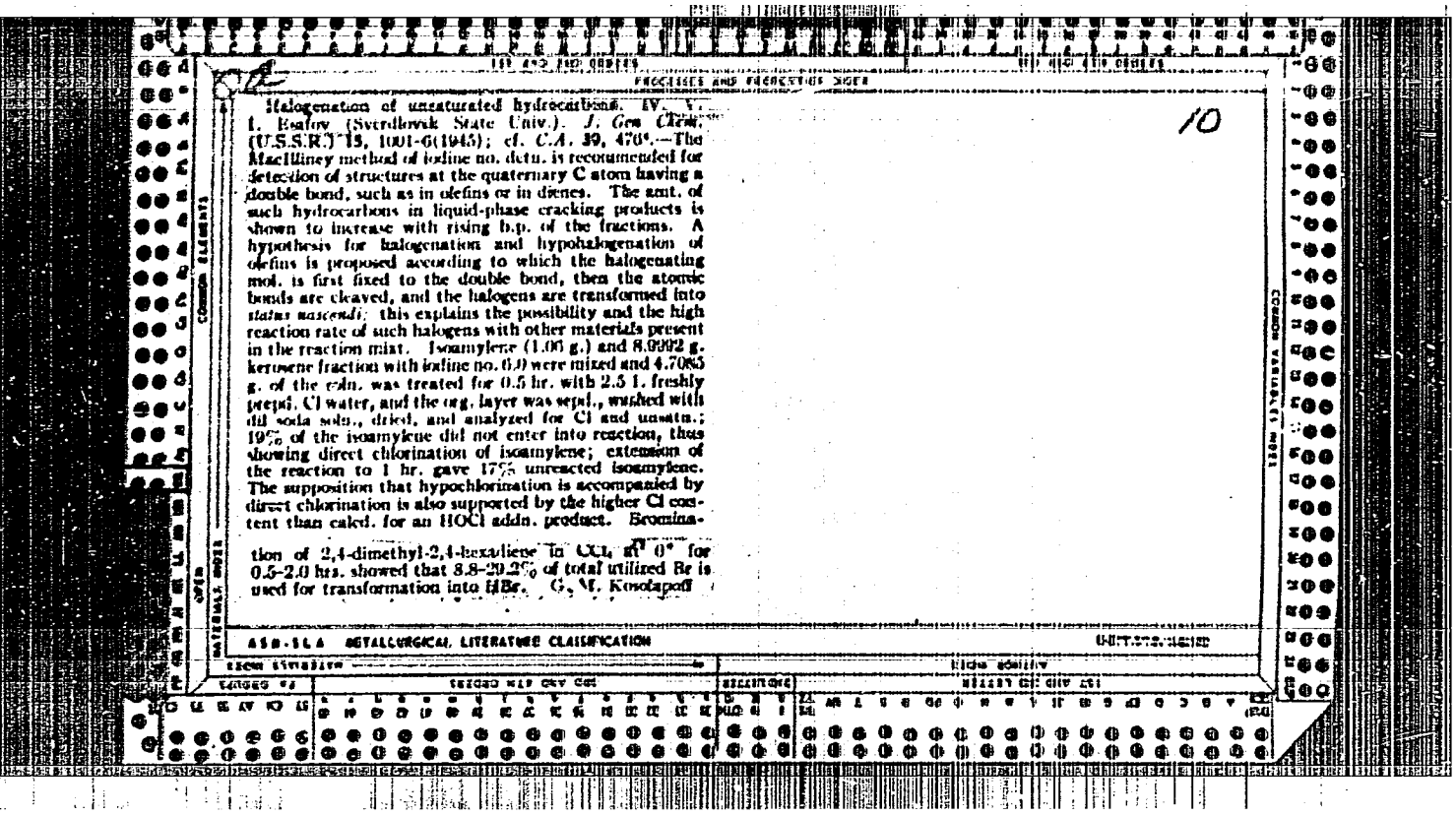
Effecting the Grignard reaction with α,β-unsaturated ketones. V. V. I. Ioufov. *J. Gen. Chem.* (U. S. S. R.) 14, 84-7(1944)(English summary); cf. preceding abstr.—Simultaneous addns. of EtMgBr (in Et_2O) and mesityl oxide (in Et_2O) to Et_2O kept at −10°, followed by the usual working-up and dehydration of the crude tertiary alc. with $C_6H_4(CO)_2O$, gave an av. yield of 50.9% *2,4-dimethyl-2,4-heptadiene*, b. 114-15°, thus showing that, in reactions of Grignard reagents with α,β-unsatd. ketones, the diln. and employment of low temp. favors the normal reaction course. The same reaction, conducted at 15°, gave 17.8% of crude octadienes, consisting of *3-ethyl-4-methyl-1,3-pentadiene*, b. 111-12°, d_4° 0.7533, n_D° 1.4424, and an undetd. amt. of the higher-boiling isomer. The product of the −10° reaction was sepd., in the ratio of 1:11, into the above pentadiene and the hexadiene, b. 114-15°, d_4° 0.7542, n_D° 1.4436. The structures of the compds. were detd. by oxidation. G. M. Kosolapoff



Ca

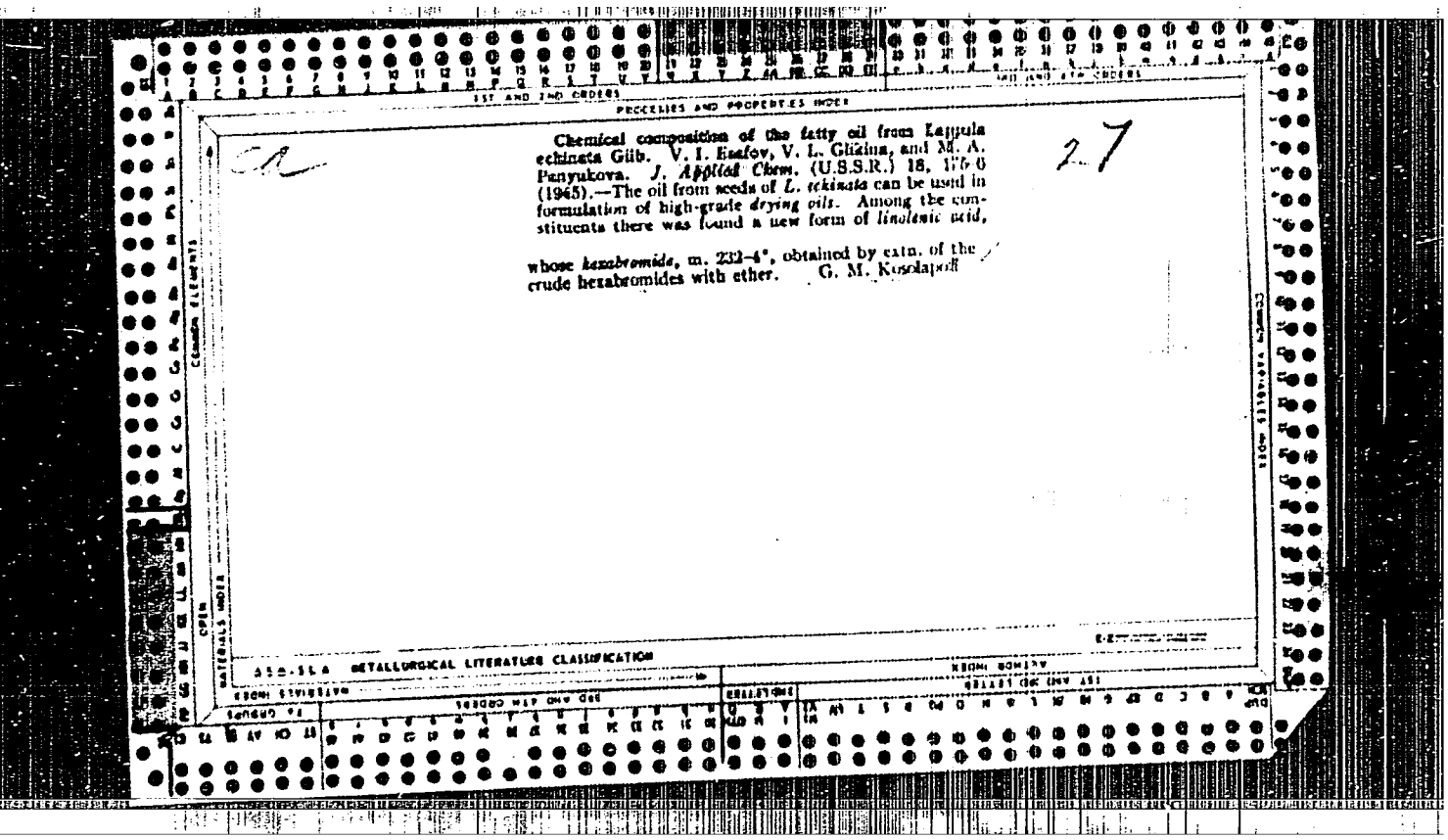
10

Attempted synthesis of a ketone of the cyclopentane series. I. V. I. Reafov. *J. Gen. Chem.* (U.S.S.R.) 14, 583-93(1944)(English summary).—Attempted cyclization between 3-methyl-5-ethyl-2,6-heptadiene and PhNC failed because of the ease of dissertation of the latter. The expts. were conducted in sealed tubes at room temp. for prolonged periods of time and with heating on a steam bath as well as on an oil bath at 150-65°. *Phenyl isonitrile dimer* is a cryst. solid, m. 135° (from petr. ether); it is rather readily hydrolyzed, thus indicating an imidol linkage between C and N, and it probably has the structure PhN=C PhN=C
C=NPh or C=NPh. G. M. Kosolapoff



Halogenation of unsaturated hydrocarbons. IV. V. I. Esafov (Sverdlovsk State Univ.). *J. Gen. Chem.* (U.S.S.R.) 15, 1001-6(1945); cf. *C.A.* 39, 470⁶.—The Mac Illiney method of iodine no. detn. is recommended for detection of structures at the quaternary C atom having a double bond, such as in olefins or in dienes. The amt. of such hydrocarbons in liquid-phase cracking products is shown to increase with rising b.p. of the fractions. A hypothesis for halogenation and hypohalogenation of olefins is proposed according to which the halogenating mol. is first fixed to the double bond, then the atomic bonds are cleaved, and the halogens are transformed into *status nascendi*; this explains the possibility and the high reaction rate of such halogens with other materials present in the reaction mixt. Isoamylene (1.06 g.) and 8.9992 g. kerosene fraction with iodine no. 0.0 were mixed and 4.7085 g. of the cdn. was treated for 0.5 hr. with 2.5 l. freshly prepd. Cl water, and the org. layer was sepd., washed with dil. soda soln., dried, and analyzed for Cl and unsatn.; 19% of the isoamylene did not enter into reaction, thus showing direct chlorination of isoamylene; extension of the reaction to 1 hr. gave 17% unreacted isoamylene. The supposition that hypochlorination is accompanied by direct chlorination is also supported by the higher Cl content than calcd. for an HOCl addn. product. Bromination of 2,4-dimethyl-2,4-hexadiene in CCl_4 at 0° for 0.5–2.0 hrs. showed that 8.8–29.2% of total utilized Br is used for transformation into HBr. G. M. Kosolapoff

10



Chemical composition of the fatty oil from Lappula echinata Gilib. V. I. Esafov, V. L. Glizina, and M. A. Panyukova. *J. Applied Chem.* (U.S.S.R.) 18, 176-0 (1945).—The oil from seeds of *L. echinata* can be used in formulation of high-grade *drying oils*. Among the constituents there was found a new form of *linolenic acid*, whose *hexabromide*, m. 232–4°, obtained by extn. of the crude hexabromides with ether. G. M. Kosolapoff

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

10

Synthesis of new diene hydrocarbons with a conjugated system of double bonds. VI. V. I. Kufrev and V. V. Mokhanova (Ural State Univ., Sverdlovsk). *J. Gen. Chem.* (U.S.S.R.) 16, 1083-90(1946); cf. C.A. 40, 4016[?]. — With the improved Grignard technique (C.A. 40, 4015[?]) involving primarily low temp., high order of diln., and slow addn. of the Grignard reagent, a no. of diene hydrocarbons were prepd. in satisfactory yields from α,β-unsatd. ketones. Generally, ketones of higher mol. wt. give lower yields, and Me ketones react less readily than Et ketones, as far as the normal reaction is concerned. Aromatic Grignard reagents favor abnormal course of the reaction to a greater extent than Me or Et Grignard reagents, in contradiction to Kohler (C.A. 2, 824). EtMgBr (from 3.8 g. Mg and 20 g. EtBr) in 40 cc. Et_2O was added over 6 hrs. at −14° to 20 g. 3-methyl-3-hepten-5-one in 100 cc. Et_2O. After working up as described in C.A. 35, 3058[?], 52.0% *3-methyl-5-ethyl-3,5-heptadiene*, b_{760} 154°, d_4^{20} 0.7710, n_D^{20} 1.4456 was obtained. To 40 g. 4-octen-3-one, b_{760} 171-3°, d_4^{20} 0.8541, n_D^{20} 1.4463, in 150 cc. Et_2O, cooled to −15°, EtMgBr (from 11.5 g. Mg and 60 g. EtBr) in 80 cc. Et_2O was added over 6 hrs; after standing overnight and decompn. with ice and NH_4Cl, the dried Et_2O ext., treated with hydroquinone, distd. in CO_2 over 3 g. $KHSO_4$ and 5 g. anhyd. Na_2SO_4, and finally purified by repeated distn. over Na, gave 25.6% *3-ethyl-2,4-octadiene*, b_{760} 167°, d_4^{20} 0.7737, n_D^{20} 1.4626; the hydrocarbon (3 g.) and 3.2 g. maleic anhydride, heated in 10 cc. MePh in a sealed tube to 100° 20 hrs., gave an acid forming an Ag salt with 34.74% Ag, which appears to correspond most closely to an adduct of the hydrocarbon dimer; interaction of the condensation at room temp. with 15 min. heating to 60° gave an oily product contg. 37.71% Ag; finally, the diene (2 g.) heated with 2.4 g. quinone in 10 cc. MePh to 100° 30 hrs., gave 0.9 g. $C_{10}H_{18}[?]$, m. 132°, which readily reacts with Br in CCl_4. To 10.5 g. PrCH:CHCOMe, b_{760} 144-7°, d_4^{20} 0.8516, n_D^{20} 1.4447, in 100 cc. Et_2O cooled to −15° to −30°, MeMgI (from 2.3 g. Mg and 17 g. MeI) in 30 cc. Et_2O was added over 6 hrs.; treatment as above gave 16% *2-methyl-1,3-heptadiene*, b_{760} 127-8°, d_4^{20} 0.7432, n_D^{20} 1.4432, while a doubled amt. of MeMgI gave 29.5%; the Diels-Alder adduct with maleic anhydride gave a Ag salt, contg. 33.95% Ag (corresponding to the adduct of the dimer or trimer). To 17.0 g. PrCH:CHCOMe in 100 cc. Et_2O, cooled to −10° to −15°, PhMgBr (from 6 g. Mg and 38 g. PhBr) in 80 cc. Et_2O was added over 6 hrs. to yield, upon dehydration as above, but at reduced pressure, and vacuum distn. over Na, and finally atm. distn. over Na, 2.2 g. *2-phenyl-1,3-heptadiene*, b_{760} 234-7°, d_4^{20} 0.9565, n_D^{20} 1.5430; the maleic anhydride adduct (prepd. at 120°) gave a Ag salt, contg. 40.97% Ag, which was fairly close to $C_{17}H_{18}O_4Ag_2$[?]. G. M. K.

Aluminum chloride-catalyzed addition of *tert*-butyl chloride to propylene. Verle A. Miller (General Motors Corp., Detroit, Mich.). *J. Am. Chem. Soc.* 69, 1764-8 (1947). — When 1.25 moles of C_3H_6 is bubbled into 1 mole *tert*-BuCl (I) and 2 g. $AlCl_3$ at −30°, at such a rate that the absorption of the gas is complete, 8-10% of the C_3H_6 and 23-5% I are recovered and 70% of a heptyl chloride

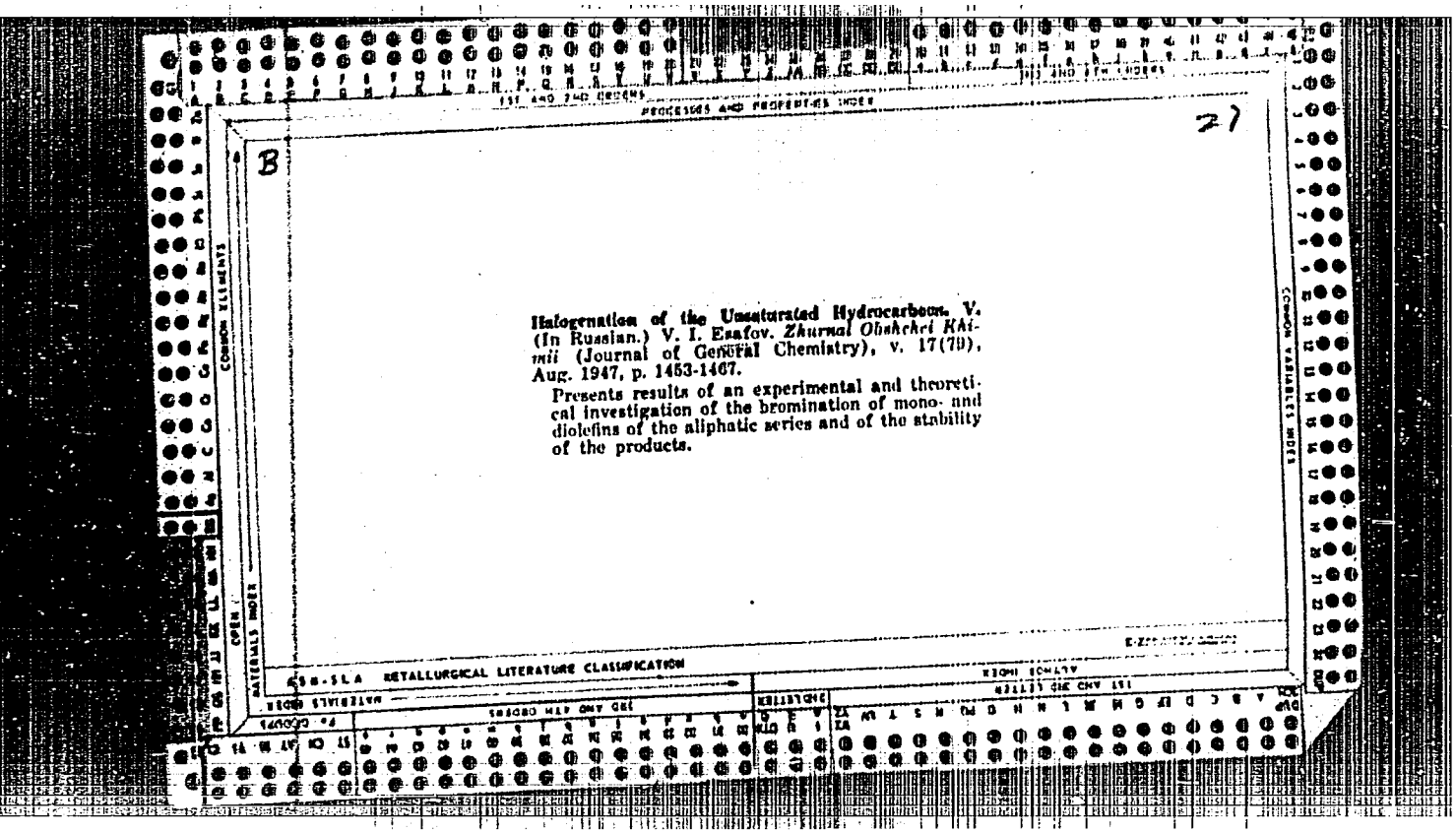
[illegible]

A10-SLA METALLURGICAL LITERATURE CLASSIFICATION

[illegible]

fraction (II) is formed. A curve shows the effect of reaction temp. and quantity of catalyst. About 45% of II is composed of 2-chloro-4,4-dimethylpentane; the remainder is principally 3-chloro-2,3-dimethylpentane with a small quantity of the 2-Cl isomer. These were identified by reaction with the Grignard reagent and comparison of the phys. properties and derivs. with known compds. The principal fraction of the higher-boiling mixt. obtained is composed chiefly of dicyl chlorides which were not further identified. At higher reaction temps. and when more catalyst was used, the reaction was more complex; the amt. of II decreased and the primary addn. product was converted almost entirely into the rearranged product; the quantity of higher-boiling product obtained increased; the quantity of lower-boiling side-reaction products increased from a negligible to a significant quantity. 2,3-Dimethyl-3-pentanol yields a *phenylurethan*, m. 48.5–9°; *that* from 4,4-dimethyl-3-pentanol m. 53–3°.

C. J. West



Halogenation of the Unsaturated Hydrocarbons. V. (In Russian.) V. I. Esafov. *Zhurnal Obshchei Khimii* (Journal of General Chemistry), v. 17(79), Aug. 1947, p. 1453-1467.

Presents results of an experimental and theoretical investigation of the bromination of mono- and diolefins of the aliphatic series and of the stability of the products.

ESSAFOV, V. I.

"On the Attempt to Synthetize the Ketones of the Cyclopentene Series. II"
(p. 1518)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1947, Vol. 17, No. 8

YESAFOR, V. L.

PA 64/49T19

USSR/Chemistry - Diene Synthesis Jun 49
Chemistry - Grignard Reaction

"Terminating and Isolating New Diene Hydrocarbons With Conjugate Double Bonds," V. L. Yesafor, Lab of Org Chem, Ural State U, Sverdlovsk, 14 pp

"Zhur Obshch Khim" Vol XIX, No 6, pp 1065-1068

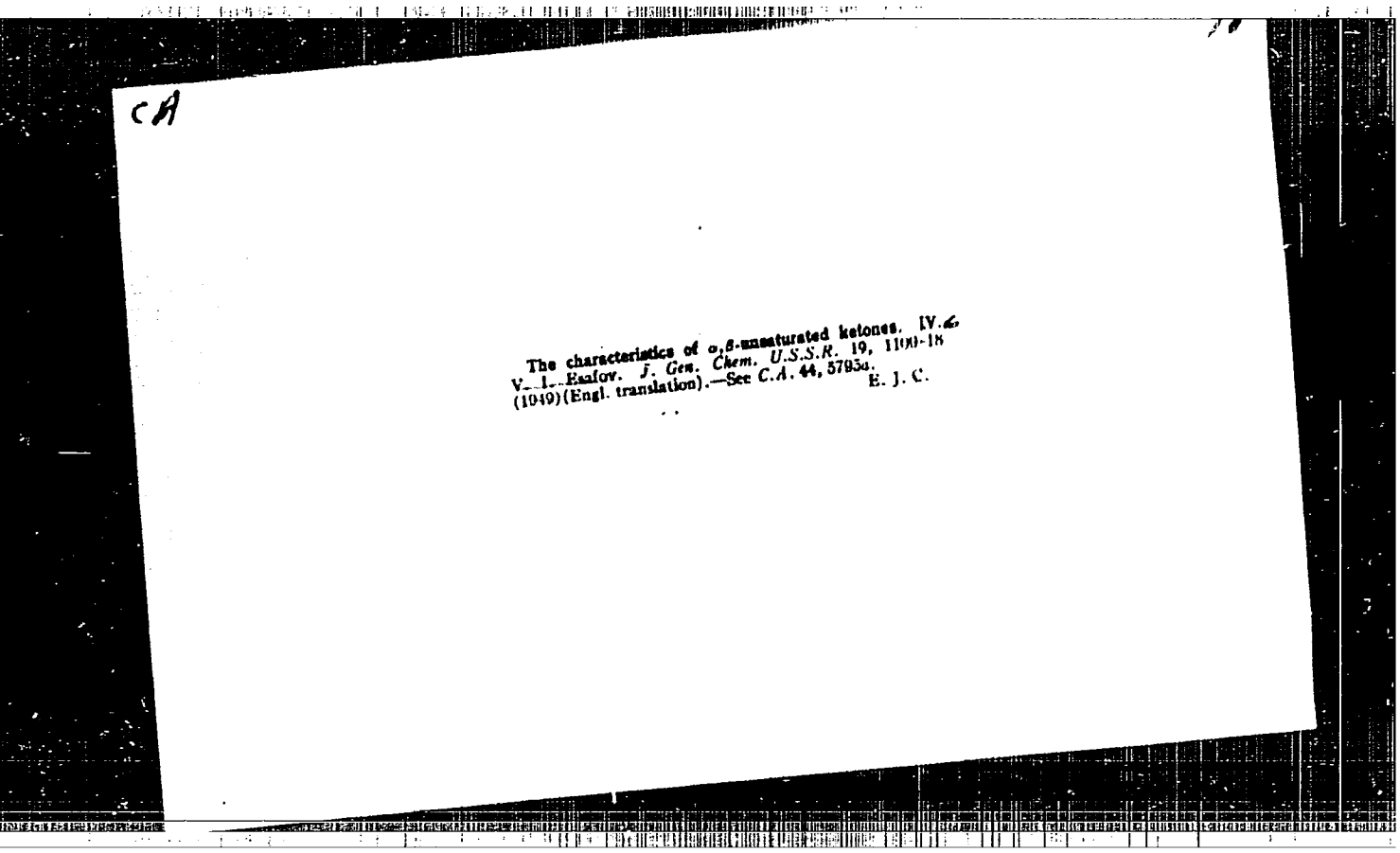
Gives synthesis of 2, 6-dimethylheptadiene-1, 3; 3-methyloctadiene-2, 4; 2-tertiary-butyl-4, 5, trimethylhexadiene-1, 3; and 2, 3, 4-trimethylhexadiene-1, 3. Physicochemical constants of 2, 6-dimethyloctadiene-4,6 are also more precise, and yield of 2, 4-

64/49T19

USSR/Chemistry - Diene Synthesis Jun 49
(Contd)

dimethylpentadiene-1,3 is improved. Studies Grignard reaction of three following systems: (1) 3-methylheptane-3-on-5 and CH_3MgI, (2) 4-dimethylhexane-3-on-5 and C_2H_5MgBr, and (3) butylidene-methylpropylketone and C_2H_5MgBr. Describes tertiary alcohols, 2, 6-methyloctene-4-ol-6 and 3, 4, 5-trimethylheptene-4-ol-3. Shows that in the dehydration of α,β-unsaturated tertiary alcohols, having in the presence of carbinol the groups CH_3 and C_2H_5, activity is chiefly caused by the H-atom of ethyl. Submitted 9 Sep 47.

64/49T19



CA

The characteristics of α,β-unsaturated ketones. IV.
V. I. Esafov. *J. Gen. Chem. U.S.S.R.* 19, 1100-18
(1949)(Engl. translation).—See *C.A.* 44, 5795a.
E. J. C.

CA

Characterization of α,β-unsaturated ketones. IV. V. I. Esafov. *Zhur. Obshchel Khim.* (J. Gen. Chem.) 19, 1115-24(1949); cf. *C.A.* 39, 918⁴.—Summarization of the previous data (*C.A.* 35, 3958⁸; 40, 6405⁵; 44, 10016) shows that the degree of conjugation of C:C and C:O links dets. the reactivity of unsatd. ketones; increased mass of R bound to the CO group decreases the extent of conjugation, and the same takes place with the R attached to the terminal C of the C:C link. Two satd. radicals on the latter C atom decrease the conjugation even more, and the action of a Me-Et combination is greater than that of di-Me or of Me and *tert*-Bu. Introduction of a satd. R on the 2nd C atom, with 2 radicals on the 1st C atom, gives the max. lowering of the conjugation. The iodination of the unsatd. ketones may serve to show the structural types by increase of the iodine no. with increased no. of side chains from the C atoms of the conjugated system; bromination in CCl_4 can also be used similarly, as the iodine no. of addn. decreases with an increased no. of radicals bound to the conjugated system. The upper conjugation limit is given by vinyl ketones and the lower limit lies with the compds. having 2 quaternary C atoms in the C:C link. The ketones used (the methods of prepn. will be given in later paper) were: *butylideneacetone* (I), b_{760} 163-5°, d_4^{20} 0.8520, n_D^{20} 1.4424; *butylidenemethyl ethyl ketone* (II), b_{760} 175-7°, d_4^{20} 0.8013, n_D^{20} 1.4479; *butylidenemethyl propyl ketone* (III), b_{760} 183-7°, d_4^{20} 0.8540, n_D^{20} 1.4450 (probably contains some 3-methyl-3-hepten-2-one); *enanthylideneacetone* (IV), b_{760} 160-10°, d_4^{20} 0.8473, n_D^{20} 1.4486; *isoamylideneacetone* (V), b_{760} 174-8°, d_4^{20} 0.8470, n_D^{20} 1.4409; mesityl oxide (VI), b_{760} 129-30°, d_4^{20} 0.8602, n_D^{20} 1.4446; *3-methyl-3-hepten-5-one* (VII), b_{760} 164°, d_4^{20} 0.8591, n_D^{20} 1.4421; *3,4-dimethyl-3-hexen-5-one* (VIII), b_{760} 157-8°, d_4^{20} 0.8585, n_D^{20} 1.4418; *3-ethyl-4-methyl-3-hepten-2-one* (IX), b_{760} 187-91°, d_4^{20} 0.8543, n_D^{20} 1.4450; *2,2,5,6,6-pentamethyl-4-hepten-3-one* (X), b_{760} 202-3°, d_4^{20} 0.8525, n_D^{20} 1.4401; benzylideneacetone (XI), m. 42.5°; and benzylidenemethyl ethyl ketone (XII), m. 40°. The iodination was run by addn. of the ketone to 10 ml. EtOH, rinsing with 10 ml. EtOH, addn. of 25 ml. EtOH-iodine soln. and, after shaking, 200 ml. H_2O.

followed by shaking and letting stand 5 min. or longer, and titration of the excess iodine with thiosulfate, while HI is calcd. from the reaction with 10 ml. 2% KIO_3 and a 2nd titration with thiosulfate; brominations were done in CCl_4, the mixts. allowed to stand 30 min. after mixing, and the HBr generated calcd. similarly from the reaction with KI and KIO_3. In 5 min. I gave an iodine no. of 3.5–3.9 with 6.9–8.1% HI formation, while a 1370-min. reaction gave 27.6–32.2 and 79.1–83.5%, resp.; II in 5 min. gave 6.4–6.1 iodine no. and 26.3–32.4% HI, while 1330 min. gave 25.7–19.7 and 67.3–78.5%, resp.; III in 5 min. gave 24.5–5.2 and 10.5–18.0%, resp. (longer run not made); XI in 5 min. gave 5.1–3.0 iodine no. (HI not reported) while 1350 min. gave 15.1–18.6 and 15.8–17.0%, resp.; XII in 5 min. gave 8.8–5.9 and 36.6–7.0%, resp.; VI gave in 5 min. 3.2–6.5 iodine no. and no HI cited, while 1740 min. gave 105.4 and 46.9% HI, resp.; X in 5 min. gave 4.8–6.1 iodine no. and 36.1–44.0% HI; VII in 5 min. gave 36.6–4.5 iodine no. and 93.6–5.4% HI, while 1700 min. gave 156.7–3.5 and 59.2–64.0%, resp.; VIII in 5 min. gave 96.3–89.2 and 69.0–5.4%, resp., while in 1410 min. it gave 198.8–204.4 and 80.1–79.0%, resp.; IX in 5 min. gave 109.7–5.7 and 82.5–72.3%, resp.; IV in 5 min. gave 30.6–8.3 and 40.2–2.0%, resp. The bromination expts. gave the following nos. of substitution and addn., resp.: I 17–32 and 194–6; II 21–7 and 185–90; III 49–7 and 157–61; IV 17–14 and 162–55; XI — and 161; XII 6–9 and 135–6; VI 11–10 and 249–6; X 33–19 and 114–16; VII 179–87 and 119–14; VIII 312–36 and 19–18; IX 223–13 and 50–64. The yields of Grignard reactions with the above ketones, cited from previous papers (references given above), are also affected by the extent of conjugation, but the results must be interpreted with care since 1,4-addn. is also possible, although the generally higher yields are assocd. with systems having a low degree of conjugation, with allowance being made for the ease of enolization. V. V. I. Rinkov and V. V. Sergovskaya. *Ibid.* 1720–3.—Ethylidenacetone (I) has the highest degree of conjugation of unsatn. in the RCH: CHAc series, i.e., increase of R increases the independence of the ethylene bond. I does not react in aq. alc. soln. with 0.1 *N* iodine, while with 0.2 *N* soln. the iodine no. is but 1.57% of theory, and even a 0.5 *N* soln. gives but 2.30% iodine no. (of theory); the butylidene analog gives 1.53, 4.39, and 17.75% of the theoretical iodine no. under the same conditions. Best prepn. of I: 550 ml. Me_2CO and 700 ml. 1.4% aq. NaOH treated at 0° with 120 g. AcH in 280 ml. H_2O_2 precooled to −2° over 6 hrs., let stand overnight at 0°, neutralized with AcOH, and satd. with NaCl, gave on extn. with Et_2O and distn. in the presence of a crystal of iodine, 18.6% of the product, bp$_{18}$ 119–21°, d_4^{20} 0.8514, n_D^{20} 1.4339. Bromination of I at 0° in CCl_4 gives 98% of the theoretical uptake, even with twice the theoretical amt. of Br; no HBr is evolved.

G. M. Kosolapoff

YESAYEV, V. I.

USSR/Chemistry - Alcohols Jul 49
Synthesis

"The Synthesis of Tertiary Alcohols Using Camphor as a Base, I," V. I. Yesayev, N. I. Movrkov, Lab of Org Chem, Ural State U, Sverdlovsk, 6½ pp

"Zhur Obshch Khim" Vol XIX, No 7

Yield of tertiary methylborneol, synthesized by interaction of camphor and CH3MgI, is decreased at high temperatures chiefly because of enolization of camphor. At 25°C, enolization of camphor is accompanied by formation of secondary compounds containing camphor, latter reaction being chief cause of a reduced yield of tertiary alcohol

2/50T30

USSR/Chemistry - Alcohols Jul 49
Synthesis (Contd)

When synthesis is carried out at -15° C. At high temperatures chief secondary reaction is reduction of camphor into borneol. Submitted 29 Mar 48.

2/50T30

CA

Characterization of α,β-unsaturated ketones. VI. V. I. Esafov (Ural State Univ., Sverdlovsk). *Zhur. Obshchei Khim.* (*J. Gen. Chem.*) 20, 1050–7(1950); cf. *C.A.* 44, 6810d.—α,β-Unsatd. ketones with normal structure are more readily hydrolyzed with 0.01 *N* than with 0.1 *N* NaOH; ketones similar to mesityl oxide behave in the reverse manner. Such gradation of reactivity may be used in the characterization of ketones. Ketones analogous to trialkylvinyl ketone, i.e. $R_3C{:}CCOR$, are even more resistant to hydrolysis. In the 1st series 0.1–0.2-g. samples were heated in ampuls with H_2O, 0.01 or 0.1 *N* NaOH (10 ml.) 2 hrs. at 100°, and the CHI_3 reaction on 10-ml. aliquots used as the relative measure of iodine consumption, calcd. on the starting material. In a 2nd series the alk. iodine soln. was allowed to react with the 10-ml. aliquot for 15 sec., 1, 5, or 15 min. so as to give a measure of the abs. amts. of the reacted ketones. The results follow. $PrCH{:}CHCOMe$: in H_2O 61.33% reacted, in 0.01 *N* NaOH 86.91%, in 0.1 *N* 73.5%. C_5H_{11}-$CH{:}CHCOMe$, 66.3, 81.0, 71.71%, resp. Mesityl oxide, 44.68, 75.43, 90.78%. $EtCMe{:}CHCOEt$, 43.23, 60.16, 92.16%. $EtCMe{:}CMeCOMe$, 37.08, 37.40, 46.58%. The ketones with normal structure have a higher degree of conjugation than occurs in branched-chain analogs and this is held to be the reason for their more easy cleavage.

G. M. Kosolapoff

CA

7

Use of the iodoform reaction in the analysis of some organic compounds. V. I. Rasfov and N. M. Stafeeva (A. M. Gor'kii Ural State Univ., Sverdlovsk, U.S.S.R.). *Zhur. Anal. Khim.* 6, 195-200(1951).—The iodoform reaction, i.e., the reaction of compds. contg. the group CH_3CO- or $CH_3CH(OH)$- with I followed by hydrolysis and formation of CHI_3 was pos. also with α,β-unsatd. ketones and their correspanding ketols not having these groups but capable of yielding acetaldehyde or satd. methyl ketones upon hydrolysis, e.g., 3-methyl-3-hepteno-5-one and 4-octene-3-one. Therefore, the detn. based on CHI_3 reaction of α,β-unsatd. methylketones and of their β-ketols which upon hydrolysis yield 2 mols. of satd. methyl ketone or aldehyde and methyl ketone is inaccurate. M. Hirsch

USSR/Chemistry - Diene Hydrocarbons Apr 52

"Bromination and Iodoxidation of 1,1-Dialkylbutadiene-2,3. Part VIII," V. I. Yesafov, Lab of Org Chem, Ural State U

"Zhur Obshch Khim" Vol XXII, No 4, pp 604-611

Dehydration of dialkyl allyl carbinols in presence of boric proceeds in 2 directions with the formation of diene hydrocarbons both with isolated bonds and with a conjugated system of double bonds. The ratio of the latter is the lower, the lower the degree of hydrogenation of the alkyl group attached to the C-atom of the allyl radical and the C-atom of the carbonyl radical. In 1,1-dimethylbutadiene-1,3, in contrast to di-isopropenyl and hexadiene-2,4 the double bonds are less strongly conjugated, and the bromination or iodoxidation proceeds more fully. Tertiary allyl radical

224T36

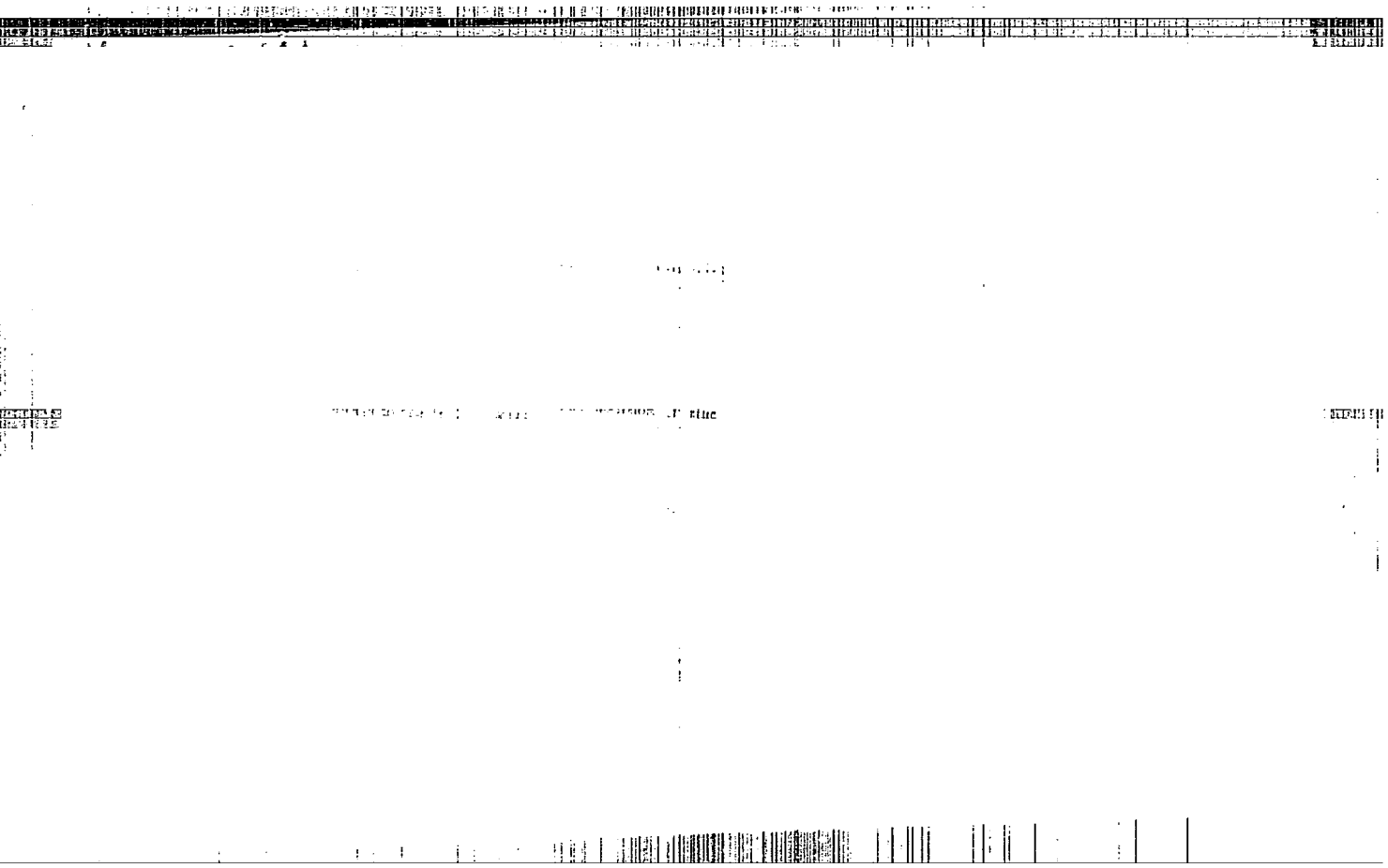
YESAFOV, V.I.

224T36

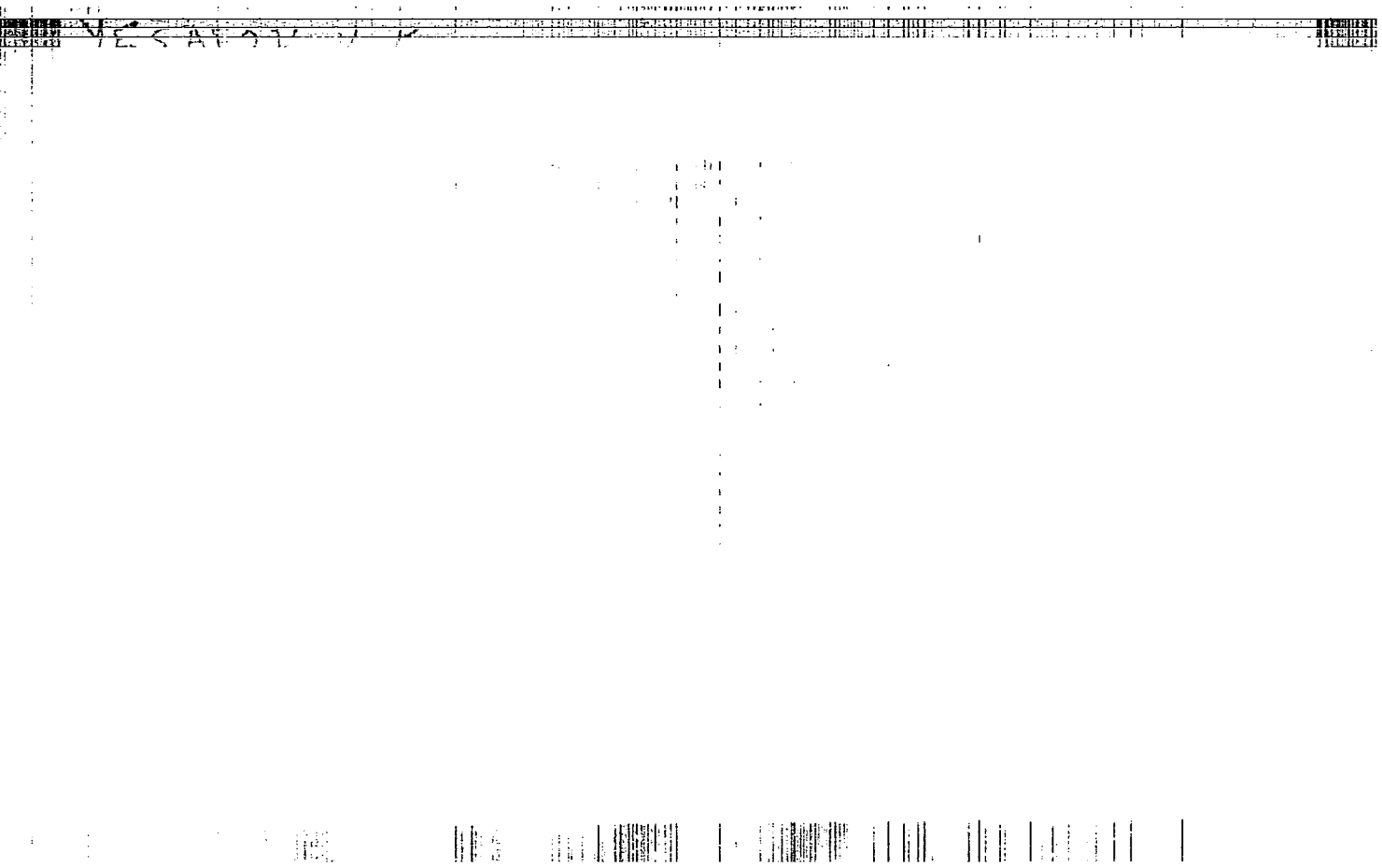
YESAFOV, V.I.

Role of Russian chemists in developing methods of synthesis by means of zinc organic compounds. Trudy Inst.ist.est.i tekh. vol.6: 318-346 '55. (MLRA 9:5)

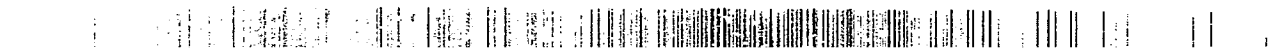
(Zinc organic compounds)



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001962920002-0"



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001962920002-0"



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001962920002-0"

YESAFOV, V.I.

Chemical structure of $C_{12}H_{14}$ and synthesis of new phenylated diene (1,3) hydrocarbons. Part 7. Zhur.ob.khim. 27 no.10:2667-2675 O '57. (MIRA 11:4)

1.Ural'skiy gosudarstvennyy universitet.
(Chemical structure) (Hydrocarbons)

AUTHOR: Yesafov, V. I. 79-28-5-17/69

TITLE: Investigation of the Thermal Decomposition of Magnesium Iodide Ethers (Issledovaniye termicheskogo razlozheniya efiratov yodistogo magniya)
I. On the Chemistry of Oxonium Compounds
(I. K khimii oksoniyevykh soyedineniy)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5, pp. 1212-1218 (USSR)

ABSTRACT: The present investigation aimed at determining the degree of the binding stability of the ether molecules of the mentioned compounds; for this also the method of thermal decomposition was used which has to be preferred in the given case to other purely chemical methods. It was found that the ethers form diethers with magnesium iodide and this with a weak binding of the magnesium with the oxygen of the ether molecules whereby they decompose into thermal decomposition to magnesium iodide and ether. It showed that the ethers with regard to their capability to form various kinds of magnesium iodide-diethers differ from each other. Some ethers form one and the same magnesium iodide

Card 1/3

Investigation of the Thermal Decompocition of Magnesium [illegible]28-5-17/69
Iodide Ethers.
I. On the Chemistry of Oxonium Compounds

[illegible], eventhough it was formed from magnesium iodide [illegible] a mixture of magnesium and iodine. The [illegible] group yields magnesium iodide [illegible] two kinds: the first is obtained of magnesium iodide as such, the other from a mixture of iodine and magnesium or by displacement from the other ether from $MgJ_2, 2(C_2H_5)_2O$. Ethers with light primary radicals are displaced from $MgJ_2, 2(C_2H_5)_2O$ by ethers with heavy primary radicals. The thermal decomposition of the magnesium iodide diethers of the second kind with aliphatic ethers [illegible] a formation of olefine and alkyl iodide [illegible] with one ether molecule and iodine atom taking [illegible] in the chemical reactions. The second iodine atom remains strongly bound to the magnesium. It was further shown that in the thermal reaction of the magnesium-iodide-ethers of the second kind with fat aromatic ethers [illegible] alkyls phenols and resinous masses form. One molecule [illegible] fat aromatic ether separates in free state. The [illegible] of a solid chemical bond of magnesium to the oxygen

Card 2/3

Investigation of the Thermal Decomposition of Magnesium [illegible]
Iodide Ethers.
I. On the Chemistry of Oxonium Compounds

of the [illegible] ether molecule in the magnesium iodide diether of the secon[illegible] proves its oxonium nature. [illegible] a scheme for the thermal decomposition of the magnesium iodide diether of the second kind was proposed. There are 6 [illegible] of which [illegible] Soviet.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet
(Ural State University)

SUBMITTED: May 5, 1957

Card 3/3

AUTHOR: Yesafov, V. I. 79-28-5-18/69

TITLE: Investigation of the Thermal Decomposition of the Reaction Products of Dioxane With Magnesium Iodide-Diether , Magnesium-Iodide and the Mixture of Magnesium and Iodine (Izucheniye termicheskogo razlozheniya produktov vzaimodeystviya dioksana s diefiratom yodistogo magniya, yodistym magniyem i smes'yu magniya s yodom)II. On the Chemistry of Oxonium Compounds (II. K khimii oksoniyevykh soyedineniy)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5, pp. 1218 - 1221 (USSR)

ABSTRACT: After it was found that ethers with magnesium iodide yield compounds of the formula $MgJ_2.2ROR$ which on heating decompose again to their initial products, it was of interest to investigate analogous compounds containing dioxane. Above all it was found that in the action of dioxane on $MgJ_2.2(C_2H_5)O$ and $RMgHal.2(C_2H_5)O$ (Reference 2) a complete analogy exists. The dioxane displaces equimolecularly the ethyl ether from these compounds. Different from the ethers, the compound

Card 1/3

Investigation of the Thermal Decomposition of the Reaction Products of Dioxane With Magnesium Iodide-Diether, Magnesium Iodide and the Mixture of Magnesium and Iodine . II. On the Chemistry of Oxonium Compounds

MgJ_2 with dioxane, $MgJ_2 \cdot 2C_4H_8O_2$, on heating separates only half of the dioxane contained in it, the other half suffering decomposition. Thus the oxygen atoms of dioxane have a greater capability to form oxonium salts than the ethers, and they yield more stable oxonium compounds. The most typical oxonium compound of dioxane is obtained in its reaction with a mixture of magnesium and iodine. This product must be regarded as oxonium salt of symmetrical (formula I) or asymmetrical structure (II). The question if these salts form at the same time, or if first salt (I) is formed which then converts to salt (II) remains unsettled. It is only clear that in salt (I) if it remains unchanged on heating the β,β'-diiodine-diether would have to be found among the decomposition products, which was not observed. The experimental results speak fully in favor of structure (II). Among the decomposition products of this salt there were found: dioxane, ethylene, ethylene iodide.

Investigation of the Thermal Decomposition of the Reaction Products of Dioxane With Magnesium Iodide-Diether, Magnesium Iodide and the Mixture of Magnesium and Iodine. II. On the Chemistry of Oxonium Compounds

ethyl iodide, acetic anhydride, iodine and magnesium. After all the results of the reaction of dioxane with the mixture of magnesium and iodine prove that the latter as well as the ethers in this case do not react according to the scheme

$$C_4H_8O_2+MgJ_2 \longrightarrow C_2H_4J_2+C_2H_4O_2Mg$$

as a high-melting dioxonium salt is formed here instead of the low-melting ethylene iodide. There are 2 Soviet references.

ASSOCIATION: Ural'skiy gosudarstvenny universitet (Ural' State University)

SUBMITTED: May 3, 1957

5 (3)

AUTHORS: Yesafov, V. I., Stashkov, L. I., Sirotkin, L. B., Suvorov, A. L., Novikov, Ye. G.

SOV/79-29-3-20/61

TITLE: On the Characteristics of the α,β-Unsaturated Ketones. VII (K kharakteristike α,β-nepredel'nykh ketonov. VII)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 845-849 (USSR)

ABSTRACT: The present paper is issued as first publication of experimental data on the hydrolytic cleavage of the aliphatic aromatic α,β-unsaturated ketones containing an aryl radical which is directly combined with the carbonyl group. Ketones of this type were obtained by dehydration of the β-ketols which had been synthesized according to the method of Grignard, V. and Colonge, I. (Ref 2).

$$(CH_3)_3C-\overset{CH_3}{\overset{|}{C}}=O + CH_3COAr \xrightarrow{C_6H_5N(CH_3)MgJ} (CH_3)_3C-\overset{CH}{\overset{|}{C}}(OH)-CH_2COAr$$

Experiments with respect to the hydrolytic cleavage of the β-ketols were carried out as well. The data of table 2 show that the β-ketols are far more unstable than the corresponding

Card 1/2

On the Characteristics of the α,β-Unsaturated Ketones. VII

α,β-unsaturated ketones and prove to be more sensitive to very weak hydrolysis reagents. Besides, the behavior of the β-ketols in the hydrolysis differs from that of the α,β-unsaturated ketones by the fact that a change of the NaOH-concentration exerts a slight influence upon the cleavage intensity of the β-ketols whereas the hydrolytic cleavage of the α,β-unsaturated ketones is considerably influenced. The rate of hydrolysis of the aliphatic aromatic ketones investigated increases significantly when the NaOH concentration is increased from 0.01 to 0.1 n. 8 β-ketols hitherto unknown were synthesized and described. It was determined how far the hydrolytic cleavage of the β-ketols and at the same time that of the α,β-unsaturated ketones develops and it was proved that the latter separate but little HBr on bromination. There are 2 tables and 4 references, 2 of which are Soviet.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)

SUBMITTED: February 18, 1958

Card 2/2

5(3)
AUTHOR: Yesafov, V. I. SOV/79-29-7-5/85

TITLE: Synthesis of the Phenylated α,β-Unsaturated Alcohols and the (1,3)-Diene Hydrocarbons.VIII (Sintez fenilirovannykh α,β--nepredel'nykh spirtov i diyenovykh (1,3) uglevodorodov.VIII)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2129-2132 (USSR)

ABSTRACT: In order to solve the problems concerning the separation of HOMgX from the forming magnesium halide carbinolates (Refs 1-3), the reaction of 2,2,3-trimethyl-5-p-arylpenten-3-ones-5 (Ar=C_6H_5, n=$CH_3C_6H_4$, n=$C_2H_5C_6H_4$), which may be present in cis- and trans-forms with RMgX (Ref 4), are described here. The experiments showed that among the three homologous ketones 2,2,3-trimethyl-5-p-tolylpenten-3-one-5 produces the best yields in tertiary alcohols. These alcohols can be dehydrated only with difficulties. In the Grignard reaction the other two ketones mainly yielded diene hydrocarbons (1,3). This particular behavior might be explained also by the influence of a spatial factor. The phenylated diene hydrocarbons (1,3) of the structure (III) and (IV) obtained show, compared to the similar aliphatic compound (V) (Ref 3), a stronger stability of the double bond

Card 1/2

Synthesis of the Phenylated α,β-Unsaturated Alcohols and the (1,3) Diene Hydrocarbons. VIII

SOV/79-29-7-5/83

in position 3,4 and may be brominated therefore only with the separation of a high amount of HBr. The following α,β-unsaturated tertiary alcohols were newly synthesized and characterized: 2,2,3-trimethyl-5-p-tolylhexen-3-ol-5 and 2,2,3-trimethyl-5-p--tolylhepten-3-ol-5 as well as the phenylated diene hydrocarbons (1,3): 2-phenyl-4,5,5-trimethylhexadiene-1,3 and 2-p-ethylphenyl-4,5,5-trimethylhexadiene-1,3. It is assumed that the stability of the halogen magnesium carbinolates formed by Grignard reaction depends on α,β-unsaturated ketones. There are 1 table and 4 Soviet references.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)

SUBMITTED: March 17, 1958

Card 2/2

YESAFOV, V. I.

On the history of the origin of the stereochemical theory and the attitude of A.M. Butler and some of his contemporary West European chemists toward it. Trudy Inst.ist.est.i tekh. 30:135-174 '60. (MIRA 13:8)

(Stereochemistry)

(Butlerov, Alexandr Mikhailovich, 1828-1886)

86499

53610 2209, 1373, 1153

S/079/60/030/011/004/026
B001/B066

AUTHORS: Yesafov, V. I. and Yakunina, G. I.

TITLE: Chemistry of Onium Compounds. III. Investigation of Thermal Decomposition of the Reaction Products of Tetrahydrofuran, α-Methyl Furan, Pyrrole, Thiophene With the Dietherate of Magnesium Iodide and With Magnesium Iodide

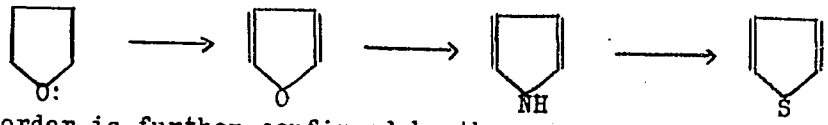
PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 11, pp. 3572-3576

TEXT: V. I. Yesafov (Refs. 1,2) showed in his papers that the etherate $MgI_2 \cdot 2(C_2H_5)_2O$ is a very convenient agent for the relative estimation of the degree of aromaticity of the five-membered O-, N- and S-heterocyclic compounds. These heterocyclic compounds may be arranged in the following order on the basis of increasing difficulty in the release of the unshared electron pair of heteroatoms with formation of "onium compounds"; and for silvan, pyrrole, and thiophene with respect to the degree of stability increase of the electron sextet of heterocycles:

Card 1/4

Chemistry of Onium Compounds. III. Investigation of Thermal Decomposition of the Reaction Products of Tetrahydrofuran, α-Methyl Furan, Pyrrole, Thiophene With the Dietherate of Magnesium Iodide and With Magnesium Iodide

S/079/60/030/011/004/026
B001/B066



This order is further confirmed by the experimental data of thermal decomposition of the reaction products of the mentioned heterocyclic compounds with anhydrous magnesium iodide. Tetrahydrofuran forms with the latter a compound which decomposes on heating by cleaving the heterocycle (Ref. 5). Silvan and pyrrole give, only on heating with magnesium iodide, compounds which decompose at high temperature, also under cleavage of the heterocycles. Also on prolonged heating, thiophene does not react with magnesium iodide. It follows from this that furan and pyrrole, as well as their compounds, maintain the "benzoide-like" state of electrons in the heterocycles only at low temperatures, with increasing temperature, however, this state is disturbed, in which connection the unshared electron pairs of oxygen and nitrogen are set free, and stable onium compounds are formed with MgI:

86499

Chemistry of Onium Compounds, III. Investigation of Thermal Decomposition of the Reaction Products of Tetrahydrofuran, α-Methyl Furan, Pyrrole, Thiophene With the Dietherate of Magnesium Iodide and With Magnesium Iodide

S/079/60/030/011/004/026
B001/B066

which also explains the decomposition of O- and N-heterocycles on heating. It was thus shown that 1) tetrahydrofuran displaces the diethyl ether from $MgI_2 \cdot 2(C_2H_5)_2O$ to form $MgI_2 \cdot 2C_4H_8O$ which is decomposed under cleavage of a molecule of tetrahydrofuran, that 2) silvan and pyrrole displace one molecule of ether from $MgI_2 \cdot 2(C_2H_5)_2O$, and give compounds with MgI_2 which decompose under cleavage of the heterocycles, that 3) thiophene reacts neither with $MgI_2 \cdot 2(C_2H_5)_2O$ nor with MgI_2. It is assumed that the participation of heteroatoms in the formation of heterocycles increases their capability of forming onium compounds. This assumption is supported by the fact that dioxane and tetrahydrofuran give with MgI_2 stabler compounds than simple aliphatic ethers. O. I. Kuznetsova, I. F. Bel'skiy,

Card 3/4

86499

Chemistry of Onium Compounds. XII. Investigation of Thermal Decomposition of the Reaction Products of Tetrahydrofuran, α-Methyl Furan, Pyrrole, Thiophene With the Dietherate of Magnesium Iodide and With Magnesium Iodide

S/079/60/030/011/004/026
B001/B066

and S. Z. Tayts are thanked for making available the samples. There are 11 references: 5 Soviet, 4 US, 2 British, and 2 German.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)

SUBMITTED: August 18, 1959

Card 4/4

YESAFOV, V.I.

Characteristics of dietertiary β-glycols. Part 1. Zhur.ob.khim. 30 no.10:3272-3275 O '61. (MIRA 14:4)

1. Ural'skiy gosudarstvennyy universitet.
(Glycols)

YESAFOV, V. I.

B/190/62/004/006/002/026
B101/B110

15.9220

AUTHORS: Tager, A. A., Suvorova, A. I., Goldyrev, L. N., Yesafov, V. I., Berestova, V. L.

TITLE: Effect of the chemical structure of the plasticizer on the vitrification temperature of polymers. I. Plasticizing of polystyrene with diphenic acid and naphthalic acid esters

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 803-808

TEXT: Thermomechanical curves were plotted for polystyrene (PSt) plasticized with 25 mole% of: monomethyl-, monoethyl-, and monobutyl diphenate; dimethyl-, diethyl-, ethyl-butyl-, dibutyl-, ethyl-octyl-, and diheptyl diphenate; dimethyl, diethyl, and dibutyl naphthalate. The synthesis of ethyl-butyl diphenate (b.p. 167-168°C/15 mm Hg, MR 91.89) and of ethyl-octyl diphenate (MR 110.57), now produced for the first time, will be published. The compatibility of the plasticizer with PSt was studied on the basis of the critical mixing temperature, which lay at 100-130°C with diphenic acid monoester, below room temperature (sometimes

Card 1/2

Effect of the chemical structure ...

at ~ -50°C) with esters of this acid, and at room temperature with naphthalates. Results: (1) The vitrification temperature, T_v, of plasticized PSt drops with increasing compatibility. Pure PSt had T_v = 105°C, PSt with monoesters had T_v = 40-70°C, PSt with diphenic acid diesters yielded the lowest T_v. T_v dropped with increasing length of the alkyl radical: ethyl-octyl diphenate yielded T_v = -11°C; the naphthenates showed a low effect (T_v = 9-48°C). (2) With increasing content of CH_2 links in the alkyl radical, T_v of diphenic acid diesters approaches a minimum at n_{CH_2} = 10-12, and then rises again. (3) The structure of the aromatic radical of the plasticizer affects T_v: diphenates (and phthalates) plasticize more intensively than naphthalates. There are 3 figures and 2 tables.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo (Ural State University imeni A. M. Gor'kiy)

SUBMITTED: March 21, 1961

Card 2/2

YESAFOV, V.I.

38277

S/190/62/004/006/003/026
B101/B110

15.9.20

AUTHORS: Tager, A. A., Suvorova, A. I., Goldyrev, L. N., Yesafov, V. I., Topina, L. P.

TITLE: Effect of the chemical structure and the size of the plasticizer molecule on the vitrification temperature of polymers. II. Plasticizing of polymethyl methacrylate with esters of diphenic and naphthalic acids

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 6, 1962, 809-814

TEXT: Thermomechanical curves were plotted for polymethyl methacrylate (PMMA) plasticized with 25 mole% of: monomethyl, monoethyl, and monobutyl diphenate; dimethyl, diethyl, ethyl-butyl, dibutyl, and diheptyl diphenate; dimethyl, diethyl, and dibutyl naphthalate. Results: (1) The better the compatibility between polymer and plasticizer, the greater the drop in the vitrification temperature, T_v, of pure PMMA (T_v = 100°C). (2) T_v dropped with increasing length of the alkyl radicals of the diphenate down to a minimum (-9°C). (3) Monoesters of diphenic acid and naphthalates showed a lower plasticizing effect (T_v ~ 50°C). (4) The

Card 1/2

Effect of the chemical structure ...

structure of the aromatic radical affects the plasticizing effect. The better plasticizing of diphenates is explained by the ability of the compound to be turned round the C-C bond between the two benzene rings. In the case of monoesters, the free COOH reduces the compatibility. (5) The molar concentration rule does not apply to the polymer plasticizer systems investigated. There are 5 figures and 1 table.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo (Ural State University imeni A. M. Gor'kiy)

SUBMITTED: March 21, 1961

YESAFOV, V.I.

History of the discovery of organic reactions in the presence of anhydrous aluminum halides. Trudy Inst.ist.est.i tekh. 39:104-140 '62. (MIRA 16:2)
(Friedel-Crafts reaction)

YESAFOV, V.I.; SHITOV, G.P.

Characteristics of primary-tertiary β-glycols. Part 3. Zhur.ob.-khim. 32 no.9:2819-2822 S '62. (MIRA 15:9)

1. Ural'skiy gosudarstvennyy universitet.
(Glycols)

YESAFOV, V.I.; ZHUKOVA, L.P.

Characteristics of secondary-tertiary β-glycols. Part 2.
Zhur.ob.khim. 32 no.9:2816-2819 S '62. (MIRA 15:9)

1. Ural'skiy gosudarstvennyy universitet.
(Glycols)

YESAFOV, V.I.; DASHKO, V.N.; MAREK, E.M.

Characteristics of secondary-tertiary β-glycols. Part 5. Zhur. ob. khim. 34 no.12:4094-4096 D '64 (MIRA 18:1)

1. Ural'skiy gosudarstvennyy universitet.

USSR / Human and Animal Physiology (Normal and Pathological). T
Lymph Circulation.

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60370

Author : Yesakov, A. I.
Inst : Not given
Title : Investigation of the "Automatic" Action of the Center of Lymphatic Hearts

Orig Pub : Zh. obshch. biologii, 1957, 18, No 3, 185-193

Abstract : The contraction of the posterior lymph hearts (LH) in a frog was recorded on a kymograph. The warming of the spinal cord with a thermode on the level of the III vertebrum produced an increase in the contraction rate; the destruction of the cord on that level did not interrupt the rhythmical action of LH. It was stopped only when the spinal cord was destroyed at the VII vertebrum. The rhythmic activity of LH originates in the

Card 1/2

YUSAKOV, A.I., Corr Mem Sci—(diss) "Study of the ~~mechanism~~ [illegible] the so-called automatic activity of lymphatic hearts." Mos, 1958. 14 pp (Mos Order of Lenin and Order of Labor Red Banner State U im M.V.Lomonosov), 150 copies

-15-

YESAKOV, A.I.

Metabolic factors of automatism (exemplified by the cerebrospinal center of lymph hearts). Zhur.ob.biol. 20 no.1:28-34 Ja-F '59. (MIRA 12:2)

1. Kafedra fiziologii zhivotnykh Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(LYMPHATICS) (SPINAL CORD) (PHYSIOLOGICAL CHEMISTRY)

SNYAKIN, P.G., prof.; YESAKOV, A.I., kand.biolog.nauk

Muscular sense. Zdorov'e 7 no.9:9-10 S '61. (MIRA 14:9)
(MUSCULAR SENSE)

YESAKOV, A.I.

Metabolic nature of the automatism of nerve cells as exemplified in the spinal center of the lymph heart. Zhur. ob. biol. 22 no.2: 136-143 Mr-Ap '61. (MIRA 14:5)

1. Department of Animal Physiology, State University of Moscow.
(NERVES)

YESAKOV, A.I.

Problems of the efferent regulation of receptors; based on an example of lingual chemoreceptors. Biul.eksp. biol. i med. 51 no.3: 3-8 Mr '61. (MIRA 14:5)

1. Iz laboratorii fiziologii i patologii organov chuvstv (zav. - prof. P.G.Snyakin) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR V.V.Parin) AMN SSSR, Moskva. Predstavlena deystvitel'stva chlenom AMN SSSR P.K.Anokhinym.

(RECEPTORS (NEUROLOGY)) (STOMACH)
(TONGUE)

YESAKOV, A. I.

"Methodology of neurodynamic investigations and practical work in the physiology of human analysors" by P. O. Makarov. Reviewed by A. I. Esakov. Nauch. dokl. vys. shkoly; biol. nauki no.3: 208-209 '62. (MIRA 15:7)

(SENSES AND SENSATION) (PHYSIOLOGY--LABORATORY MANUALS)
(MAKAROV, P. O.)

SNYAKIN, P. G., prof.; YESAKOV, A. I., kand. biologicheskikh nauk

Our habits are stereotypes. Zdorov'e 8 no.11:4-5 N '62.
(MIRA 15:10)

(HABIT)

YESAKOV, A.I.

Effect of the sympathetic nervous system on the electric activity of tongue receptors. Trudy Inst. norm. i pat. fiziol. AMN SSSR 6:63-65 '62 (MIRA 17:1)

1. Laboratoriya fiziologii i patologii organov chuvsts (zav.-prof. P.G. Snyakin) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

YESAKOV, A.I.; ZAYKO, N.S.

Effect of guanidine on the functional activity of taste receptors. Fiziol. zhur. 49 no.8:984-989 Ag '63. (MIRA 17:2)

1. From the Laboratory for Physiology and Pathology of Sense Organs, Institute of Normal and Pathologic Physiology, U.S.S.R. Academy of Medical Sciences, Moscow.

YESAKOV, A.I.

Reflex regulation of "spontaneous" activity of tongue chemo-receptors. Biul. eksp. biol. i med. 56 no.8:7-11 Ag '63.
(MIRA 17:7)

1. Iz laboratorii fiziologii i patologii organov chuvstv (zav. - prof. P.G. Snyakin) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR prof. V.V. Parin) AMN SSSR, Moskva. Predstavleno deystvitel'nym chlenom AMN SSSR P.K. Anokhinym.

YESAKOV, A.I.

Efferent reactions in the hypoglossal nerve. Biul. eksp. biol. i med. 56 no.11:15-18 O [i.e. N] '63. (MIRA 17:11)

1. Iz laboratorii fiziologii i patologii organov chuvstv (zav. - prof. P.G. Snyakin) Instituta normal'noy i patologicheskoy fiziologii (dir.- deystvitel'nyy chlen AMN SSSR prof. V.V. Parin) AMN SSSR, Moskva.

YESAKOV, A.I.

Electrophysiological analysis of the functional mobility and of processes regulating the taste receptor apparatus. Trudy Inst. norm.i pat.fiziol. AMN SSSR 7:43-44 '64. (MIRA 18:6)

1. Laboratoriya fiziologii i patologii organov chuvstv (zav. - prof. P.G.Snyakin) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

YESAKOV, A.I. (Moskva)

Role of different regulation levels of receptors in the perception process. Vest. AMN SSSR 21 no.1:62-68 '66.
(MIRA 19:1)

YESAKOV, A.I.; FILIN, V.A.

Physiological characteristics of the functioning of the taste receptor apparatus. Fiziol. zhur. 50 no.2:169-176 F '64.
(MIRA 18:2)

1. Laboratoriya fiziologii i patologii organov chuvstv Instituta normal'noy i patologicheskoy fiziologii AMN SSSR, Moskva.

YESAKOV, A.I.

Possible specific stimulus of the "automatic" center of the lymph heart. Biul. eksp. biol. i med. 57 no.6:19-22 Je '64.
(MIRA 18:4)

1. Kafedra fiziologii zhivotnykh Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.

YUR'YEV, YU.K.; BAZAN, V.I.; YESAFOVA, A.N.; SELIVERSTOVA, S.M. AND CHERNYAKHOVER, S.I.

"The Catalytic Transformations of Heterocyclical Compounds" Part XVI. "Synthesis of Certain Pyridine and Quinoline Derivatives of Pyrrolidine" Zhur Obshch. Khim. 10, No. 21, 1940. Moscow Order To Lenin State University imeni M.V.Lomonosova, Laboratory of Organic Chemistry imeni Academician N. D. Zelinskiy. Received 26 May 1940.

U-1612, 3 Jan. 1952

YESAKOV, I.S.; YASHCHENKO, Z.G.

Interpreting vertical electric sounding curves by the T method.
Razved. i prom. geofiz. no.30:50-54 '59. (MIRA 12:12)
(Electric prospecting)

YASHCHENKO, Z.G.; YESAKOV, I.S.

Use of electric prospecting in studying the elastic properties of igneous rocks. Razved.i prom.geofiz. no.33:23-29 '59. (MIRA 13:4)

(Rocks--Electric properties) (Elasticity)

YESAKOV, V.A.

M.S.Bodnarskii; obituary. Izv.AN SSSR Ser.geog. no.1:95-96 Ja-F '54. (MLRA 7:2)
(Bodnarskii, Mitrofan Stepanovich, 1870-1953)

USSR/ Geography Education

Card : 1/1 Pub. 45 - 8/20

Authors : Esakov, V. A.

Title : History of the origination of geography faculties at Russian universities

Periodical : Izv. AN SSSR, Ser. geog. 4, 57 - 60, July - August 1954

Abstract : History of the establishment of geography faculties at Russian universities since the second half of the 19th century.

Institution : Acad. of Sc. USSR, Institute of Natural History and Technique

Submitted : .....

YESAKOV, V.A.

FD-1152

USSR/Geophysics - Moscow University

Card 1/1 Pub. 129-16/23

Author : Yesakov, V. A.

Title : From the history of geography in Moscow University (up to the establishment of the chair of geography in 1884)

Periodical : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, 9, No 7, 131-136, Oct 1954

Abstract : The Petersburg Academy of Sciences, founded in 1725, established in 1739 its Geographical Department. The author lists the numerous studies and expeditions undertaken after this date.

Institution :

Submitted : May 22, 1954

YESAKOV, V.A.; SOLOV'YEV, A.I., redaktor; VOLODINA, N.I., redaktor; ZAKHAROVA, T.A., tekhnicheskiy redaktor

[D.N. Anuchin and foundation of the Russian academic geographical school.] D.N. Anuchin i sozdanie russkoi universitetskoi geograficheskoi shkoly. Moskva, Izd-vo Akademii nauk SSSR, 1955. 180 p. (Anuchin, Dmitrii Nikolaevich, 1843-1923) (MLRA 8:10)

YESAKOV, V.A.

M.I. Veniukov's correspondence with N.M. Przheval'skii.
Vop. ist.est. i tekh. no.1:207-212 '56. (MLRA 9:10)

(Veniukov, Mikhail Ivanovich, 1832-1901)
(Przheval'skii, N.M.)

3(0) SOV/10-59-3-21/32

AUTHOR: Yesakov, V.A.

TITLE: Scientific Contacts of A. Humboldt with Russian Scientists

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1959, Nr 3, pp 124-130 (USSR)

ABSTRACT: This is a review of scientific contacts of A. Humboldt with Russian scientists. There is 1 photograph, and 18 references, of which 15 are Russian and 3 German.

ASSOCIATION: Institut istorii yestestvoznaniya i tekhniki AN SSSR (the Historical Institute of the Science of Natural History and Technology, AS USSR).

Card 1/1

3(

SOV/10-59-4-28/29

AUTHOR: Yesakov, V.A.

TITLE: A. Humboldt's Anniversary in the USSR

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya 1959, Nr 4, p 158 (USSR)

ABSTRACT: The article is concerned with the 100th anniversary of the death of A.v. Humboldt in the USSR. The following personalities and organizations participated in the commemoration of the great German scientist: Academician D.I. Shcherbakov, Corresponding Member AN SSSR (AS USSR), S.V. Kalesnik, Academician A.A. Grigor'yev, Corresponding Member AS USSR S.V. Obruchev, the Akademiya nauk SSSR (Academy of Sciences USSR), the Geograficheskoye obshchestvo SSSR (Geographical Society USSR), the Glavnaya geofizicheskaya observatoriya im. A.I. Voyeykova (Central Geophysical Observatory imeni A.I. Voyeykov), the Astronomicheskiy institut imeni P.K. Shternberga (Institute of

Card 1/3

A. Humboldt's Anniversary in the USSR

Astronomy imeni P.K. Shternberg), the Vsesoyuznoye botanicheskoye obshchestvo (All-Union Botanical Society), the Otdeleniye geologo-geograficheskikh nauk (Section of Geological and Geographical Sciences) AS USSR, the Institut istorii yestestvoznaniya i tekhniki (Institute of History of the Natural Sciences and Technology), the Sovetskoye natsional'noye ob"yedineniye istorikov yestestvoznaniya i tekhniki (Soviet National Association of Historians of Natural Sciences and Technology), the Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov), the Moskovskoye obshchestvo ispytateley prirody (Moscow Society of Naturalists), Obshchestvo sovetsko-germanskoy druzhby i nauchnykh svyazey (Soviet-German Society for the Promotion of Friendship and Scientific Connections), the Gosudarstvennyy istoricheskiy muzey (State Historical Museum), the Gosudarstvennyy muzey

Card 2/3

A. Humboldt's Anniversary in the USSR

izobrazitel'nykh iskusstv (State Museum of Graphic Arts), the Muzey zemlevedeniya MGU (Geographical Museum MGU), the Gosudarstvennoye izdatel'stvo geograficheskoy literatury (State Publishing House of Geographical Publications) and the Ministerstvo svyazi SSSR (Ministry of Communications USSR). There is 1 Soviet reference.

Card 3/3

YESAKOV, V.A.; SOLOV'YEV, A.I.; FEDOSEYEV, I.A., otv. red.;

[Russian geographical explorations of European Russia and the Urals in the 19th and the beginning of the 20th century] Russkie geograficheskie issledovaniia Evropeiskoi Rossii i Urala v XIX - nachale XX v. Moskva, Nauka, 1964. 177 p. (MIRA 17:11)

NAUMOV, Guriy Vasil'yevich; FEDOSEYEV, I.A., otv. red.; YESAKOV, V.A., red.; SOLOV'YEV, A.I., red.

[Russian geographical explorations in Siberia in the 19th century] Russkie geograficheskie issledovaniia Sibiri v XIX - nachale XX v. Moskva, Nauka, 1965. 146 p.
(MIRA 19:1)

YESAKOV, V.A.; PLAKHOTNIK, A.F.; ALEKSEYEV, A.I.; FEDOSEYEV, I.A., otv. red.; SOLOV'YEV, A.I., red.

[Russian ocean and sea studies in the 19th to the beginning of the 20th century] Russkie okeanicheskie i morskie issledovaniia v XIX-nachale XX v. Moskva, Nauka, 1964. 158 p. (MIRA 18:1)

YESAKOV, Vasiliy Petrovich; PARFENOV, Eduard Yevgen'yevich; PROZOROV, Valentin Alekseyevich; LERNER, D.M., red.

[Automated electric drive systems with regulated semiconductor rectifiers] Sistemy avtomatizirovannogo elektroprivoda s upravliaemymi poluprovodnikovymi vypriamiteliami. Leningrad, 1964. 35 p. (MIRA 17:11)

YESAKOV, V.P., inzhener.

Operating conditions of electric winches on ships. Sudostroenie 23 no.3:34-35 Mr '57. (MLRA 10:5)
(Winches) (Electricity on ships)

YESAKOV, V.P., kand.tekhn.nauk

Systems for electric propelling units using steady current. Sudostroenie 25 no.2:31-34 F '59. (MIRA 12:4)
(Electricity on ships)

L 33115-66

ACC NR: AP6024083 SOURCE CODE: UR/0144/66/000/002/0235/0236

AUTHOR: Zav'yalov, A. S.; Got'man, A. A.; Molchanov, V. D.; Krasyuk, N. P.; Agranovskiy, K. Yu.; Berger, A. Ya.; Greyer, L. K.; Ysaakov, V. P.; Miller, Ye. V.; Pyatman, K. I.; Abryutin, V. N.; Gubanov, V. V.; Oranskiy, M. I.; Yevseyev, N. Ye.; Morkin, G. B.; Sinol'nikov, Ye. M.; Avilov-Karnaukhov, B. N.; Bogush, A. G.; Bolyayev, I. P.; Pekker, I. I.; Chernyavskiy, F. I.

ORG: none

TITLE: O. B. Bron (on his 70th birthday)

SOURCE: IVUZ. Elektromekhanika, no. 2, 1966, 235-236

TOPIC TAGS: electric engineering personnel, circuit breaker

ABSTRACT: Osip Borisovich Bron was born in 1896 in Klintsi. In 1920, he graduated from the physics-math faculty of Khar'kov Technological Institute. He became a professor in 1930. He defended his doctor's thesis in 1940. During the second world war, he was in the navy. After demobilization in 1950, Engineer Colonel Bron went to work teaching at the Leningrad Industrial Correspondence School. He became the head of the Chair of Theoretical Bases of Electrical Technology in 1958. He is closely associated with scientific and development work, and has cooperated closely in this area with the Leningrad "Elektrosila" plant since 1946. His work has been in the areas of spark-damping and high-power circuit breakers. He has published over 140 scientific works and 19 inventions. [JPRS]

SUB CODE: 05, 09 / SUBM DATE: none

Card 1/1

5.3300

77094
SOV/62-59-12-38/43

AUTHORS: Zhuze, T. P., Zhurba, A. S., Yesakov, Ye. A.

TITLE: Brief Communications. Investigation of P-V-t-N Relation and Phase Equilibrium in Ethylene-Cyclohexane System

PERIODICAL: Izvestiya Akademii nauk. Otdeleniye khimicheskikh nauk, 1959, Nr 12, pp 2251-2253 (USSR)

ABSTRACT: Investigation of binary systems of unsaturated gases and paraffins, naphthenes, and aromatic hydrocarbons, presents great practical interest in view of the high solubility of the latter in compressed unsaturated gases. P-V-t-N relationship of the ethylene-cyclohexane system was studied by the authors in a modified apparatus described by Sage and Lacey (Trans. Amer. Inst. Mining Met. Engrs., 1940, Nr 136, p 138). Isotherms $V = f(p)t$ were traced in the range from 30 to 150° for ethylene-cyclohexane mixtures with 20 to 85 molar % ethylene, at pressures ranging from 10 atm to pressures somewhat above the saturation point of each mixture. Saturation pressures and the corresponding specific volumes were determined from these isotherms, and dew point pressures were established in a series of separate experiments.

Card 1/3

Brief Communications. Investigation of P-V-t-N Relation and Phase Equilibrium in Ethylene-Cyclohexane System

77094
SOV/62-59-12-38/43

Data thus obtained, served to trace isotherms $p = f(N)t$ (where N is the molar share of ethylene dissolved in cyclohexane); isotherms of the equilibrium constant for ethylene and cyclohexane, $K = f(P)t$; and isotherms of molar volumes V_M of the binary system plotted against molar share N_2 of ethylene at 50 atm.

In this manner, the composition of the coexisting phases, the equilibrium constants of ethylene and cyclohexane at pressures up to 100 atm, and the molar volumes of mixtures at their saturation pressures, were determined in the temperature range from 30 to 125°. Molar volume isotherms at low temperatures were practically linear up to $N_2 = 0.65$; at higher temperatures, the molar volume increases sharply starting with $N_2 = 0.50$. There are 3 figures; and 3 references, 1 U.S., 2 Soviet. U.S. reference is: B. H. Sage, W. N. Lacey, Trans. Amer. Inst. Mining. Met Engrs., 136, 138 (1940).

Card 2/3 2

Inst. Geology & Processing Mineral Fuels AS USSR

ZHUZE, T.P.; YUSHKEVICH, G.N.; USHAKOVA, G.S.; YESAKOV, Ye.A.

Critical parameters for oil and oil-gas systems. Neft. khoz. 41 no.6:25-31 Je '63. (MIRA 17:6)

AFANAS'YEVA, V. B.; YESAKOVA, N. P.

Relation between the snow cover and G. J. Wangenheim's types of circulation. Trudy GGO no.151:77-80 '64. (MIRA 17:7)

ACCESSION NR: AT4046059 S/2531/64/000/166/0182/0188

AUTHOR: Yudin, M.I.(Doctor of physico-mathematical sciences); Yesakova, N. P.; Afanas'yeva, V. B.

TITLE: Preliminary evaluation of the prognostic significance of the information obtained from meteorological satellites

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 166, 1964. Voprosy* interpretatsii danny*kh meteorologicheskikh sputnikov (Problems in the interpretation of data of meteorological satellites), 182-188

TOPIC TAGS: meteorology, meteorological satellite, cloud, precipitation, weather forecasting, long-range weather forecasting, snow cover, radiation balance

ABSTRACT: The objective of this paper was to develop a method for the preliminary characterization of anomalies of cloud cover, the radiation balance of the underlying surface and the limits of snow and ice cover for subsequent use of such characteristics in long-range weather forecasting. The authors establish statistical relationships between such anomalies and the characteristics of future weather (temperature and precipitation); certain direct characteristics of atmospheric circulation are also analyzed in relation to future weather. Determination of the characteristics of anomalies of the cloud cover,

Card 1/3

ACCESSION NR: AT4046059

the boundaries of the snow and ice cover and the radiation balance was done using mean 10-day values for the period September-November 1948-1957. These values were mapped, after which the parameters characterizing the fields of individual elements were determined. The method used for constructing the maps and defining the characteristics of anomalies is described briefly. The state of atmospheric circulation was described using the zonal index devised by Ye. N. Blinova, the M.I. Yudin meridional index and the A. A. Rozhdestvenskiy hydrodynamic indices. These parameters were used to supplement the 10-day means of temperature and precipitation for an analysis of these values determined for a grid of points covering much of the European SSSR. Synchronous statistical relationships were established between the 10 mentioned parameters; asynchronous prognostic relationships also were determined. The ten considered parameters were correlated with temperature and precipitation for the 10 days which followed. The computations of the correlation coefficients were performed on a "Ural-1" electronic computer. Most of the results of the computations were plotted on maps, and 66 such maps were constructed. In a considerable number of cases relationships were discovered which are characterized by quite high correlation coefficients and with a stable identical

Card 1/2

ACCESSION NR: AT4046059

sign for the entire considered area. It was found that the selected parameters generally give more information for prediction of temperature than for prediction of precipitation. However, an absence of prognostic relationships is noted on a number of maps. The method described made it possible to establish a number of parameters of the state of the atmosphere and the underlying surface which are quite closely related to the characteristic of future weather for 10 days in advance. The greater part of the parameters apply to those elements which cannot be determined globally except by use of meteorological satellites. This emphasizes the great importance of satellite observations for long-range forecasting. Orig. art. has: 2 formulas, 5 figures and 1 table.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya Leningrad (Main Geophysical Observatory)

SUBMITTED: 00 ENCL: 00 SUB CODE: ES

NO REF SOV: 006 OTHER: 000

Card 3/3

AFANAS'YEVA, V.B.; YESAKOVA, N.P.

Statistical relations between the anomalies of certain weather characteristics. Trudy GGO no.165:105-113 '64.
(MIRA 17:9)

AFANAS'YEVA, V.B.; YESAKOVA, N.P.

Relation of the shift of the boundary of snow cover to the G.Ia. Vangengeim types of circulation in the spring period. Trudy GGO no.168:45-48 '65.

YUDIN, M.I.; YESAKOVA, N.P.; AFANAS'YEVA, V.B.

Preliminary evaluation of the prognostic significance of information returned by meteorological satellites. Trudy GGO no.166:182-188 '64.

(MIRA 17:11)

YESAKOVA, R.

Objective method for determination of the liming stage of gelatin stock. R. Gorodetskaya, M. Sheremet, M. Shakhnazarova, D. Virnik, V. Smirnova, and R. Yesakova. Myasnaya Ind. S. S. S.R. 25, No. 5, 52-4(1954). ——The procedure for detg. the status of the liming of gelatin stock is based on extg. a sample and detg. extd. gelatin colorimetrically by means of the biuret reaction. Results are given for extractable gelatin in bome stock at 5-day intervals for 40 days of liming. Total extractable gelatin is detd. for various bones and other gelatin stock.

M. M. Piskur

GORODETSKAYA, R.V., kandidat khimicheskikh nauk; SHAKHNAZAROVA, M.Sh., mladshiy nauchnyy sotrudnik; SHEREMET', M.V.; VIRNIK, D.I.; SMIRNOVA, V.Ye.; YESAKOVA, R.

Reducing losses in gelatin production. Trudy VNIIMP no.7:108-113 '55. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Gorodetskaya, Shakhnazarova, Sheremet); 2. Moskovskiy zhelatinovyy zavod (for Virnik, Smirnova, Yesakova).
(Gelatin)

GORODETSKAYA, R.V., kandidat khimicheskikh nauk; SHAKHNAZAROVA, M.Sh., mladshiy nauchnyy sotrudnik; SHEREMET, M.V.; VIRNIK, D.I.; SMIRNOVA, V.Ye.; YESAKOVA, R.

Methods of determining the degree of liming in gelatigenous tissues. Trudy VNIIMP no.7:114-122 '55. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti (for Gorodetskaya, Shakhnazarova, Sheremet); 2. Moskovskiy zhelatinovyy zavod (for Virnik, Smirnova, Yesakova).
(Gelating)